

CITY OF BELMONT

**2015 Sewer Rehabilitation Project
City Contract Number 2015-534
ADDENDUM NUMBER 2 – DATED July 10, 2015**

Acknowledge receipt (below). Fax acknowledgement to (650) 593-8394. This signed Addendum shall accompany the Bid.

Company	Name	Date
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Notice is hereby given to prospective bidders that the Plans and Specifications for the subject project are modified as set forth in the Addendum Number 2.

This Addendum shall be attached to, and form a part of, the Plans and Specifications for the construction of the **2015 Sewer Rehabilitation Project City Contract Number 2015-534**, on which to bid. A conformed set of plans and specifications will be issued after award of the contract.

- **Bid opening is postponed from July 15, 2015 to Wednesday July 22, 2015 at 2 pm.**

PLANS

- Sheet **2** - Pothole data added
- Sheet **5** - Additional spot repair on Upper Lock
- Sheets 6, 8, 9, 10, 12, 13, 14, and 16- Revised utility location based on USA markings
- Sheets 8, 9, 10, 12, 13, and 14- Pothole locations shown.


BID SCHEDULE

- Use revised bid schedule attached

TECHNICAL SPECIFICATIONS

- Add pothole report as Exhibit A to the Technical Specifications (Attached)

Acknowledgement of Receipt of this Addendum to be submitted with the bid proposal.


Leticia Alvarez, PE
City Engineer
City of Belmont
(650) 595-7467

4. **BID SPREADSHEET.** Bidder hereby offers to provide to the City the Work required by the Contract Documents (as defined in Agreement Section 2), for the amounts quoted in this Bid, as follows:

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Unit Price	Bid Item Extension
1	Mobilization and Demobilization	LS	1	\$	\$
2	Bonds and Insurance	LS	1	\$	\$
3	Shoring	LS	1	\$	\$
4	Pedestrian and Traffic Control	LS	1	\$	\$
5	SWPP Plan	LS	1	\$	\$
6	Potholing	EA	20	\$	\$
7	Barclay - 6" Pipe Lining	LF	284	\$	\$
8	Barclay - Repair Lateral	EA	6	\$	\$
9	Barclay - Reinstall Lateral	EA	6	\$	\$
10	Monte Cresta - Manhole Rehabilitation	EA	1	\$	\$
11	Upper Lock - 6" Pipe Lining	LF	663	\$	\$
12	Upper Lock - Spot Repair	EA	3	\$	\$
13	Upper Lock - Reinstall Lateral	EA	6	\$	\$
14	Hallmark - 6" PVC - Trench	LF	147	\$	\$
15	Comstock - 6" Pipe Lining	LF	414	\$	\$
16	Comstock - Reinstall Lateral	EA	11	\$	\$
17	Comstock - Manhole Rehabilitation	EA	2	\$	\$
18	Lincoln - 6" Pipe Lining	LF	495	\$	\$
19	Lincoln - Repair Lateral	EA	10	\$	\$
20	Lincoln - Reinstall Lateral	EA	6	\$	\$
21	Lincoln - Manhole Rehabilitation	EA	1	\$	\$
22	Ponce - 6" PVC - Trench	LF	132	\$	\$
23	Ponce - Encased Sewer	LF	5	\$	\$
24	Cipriani - 6" Pipe Lining	LF	128	\$	\$
25	Cipriani - Repair Lateral	EA	1	\$	\$
26	Cipriani - Reinstall Lateral	EA	2	\$	\$
27	Cipriani - Manhole Rehabilitation	EA	2	\$	\$
28	Geraldine - 6" Pipe Lining	LF	237	\$	\$
29	Geraldine - Repair Lateral	EA	2	\$	\$
30	Geraldine - Reinstall Lateral	EA	3	\$	\$
31	Geraldine - Manhole Rehabilitation	EA	1	\$	\$
32	Geraldine - New Manhole	EA	1	\$	\$

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Unit Price	Bid Item Extension
33	Village - 6" PVC - Trench	LF	80	\$	\$
34	Village - Reform Manhole Invert	EA	1	\$	\$
35	Village - Replace Manhole Top	EA	1	\$	\$
36	Maywood - 8" PVC - Trench	LF	526	\$	\$
37	Maywood - Manhole Rehabilitation	EA	1	\$	\$
38	Maywood - Manhole Spot Repair	EA	1	\$	\$
39	Ladera - 8" PVC - Trench	LF	152	\$	\$
40	Ralston - 6" Pipe Lining	LF	387	\$	\$
41	Ralston - Reinstate Lateral	EA	2	\$	\$
42	Ralston - Manhole Rehabilitation	EA	1	\$	\$
43	North - 8" PVC - Trench	LF	2016		
44	North - Abandon 6" VCP	LF	495	\$	\$
45	North - Abandon Manhole	EA	2	\$	\$
46	North - New Manhole	EA	1	\$	\$
47	North - New Lamp Hole	EA	1	\$	\$
48	North - Manhole Rehabilitation	EA	3	\$	\$
49	North - Grout Manhole	EA	1	\$	\$
50	Williams - 8" PVC - Trench	LF	388	\$	\$
51	Williams - Manhole Rehabilitation	EA	1	\$	\$
52	Hiller - 6" Pipe Lining	LF	640	\$	\$
53	Hiller - Reinstate Lateral	EA	24	\$	\$
54	Hiller - Manhole Rehabilitation	EA	3	\$	\$
55	Kedith - 6" PVC - Trench	LF	748	\$	\$
56	Kedith - Manhole Rehabilitation	EA	2	\$	\$
57	Ralston - Spot Repair	EA	1	\$	\$

TOTAL BASE BID AMOUNT FOR BID SELECTION: \$_____

OPTIONAL ITEMS

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Unit Price	Bid Item Extension
58	Ralston - Spot Repair (Optional)	EA	2	\$	\$
59	Ralston - New Manhole (Optional)	EA	2	\$	\$

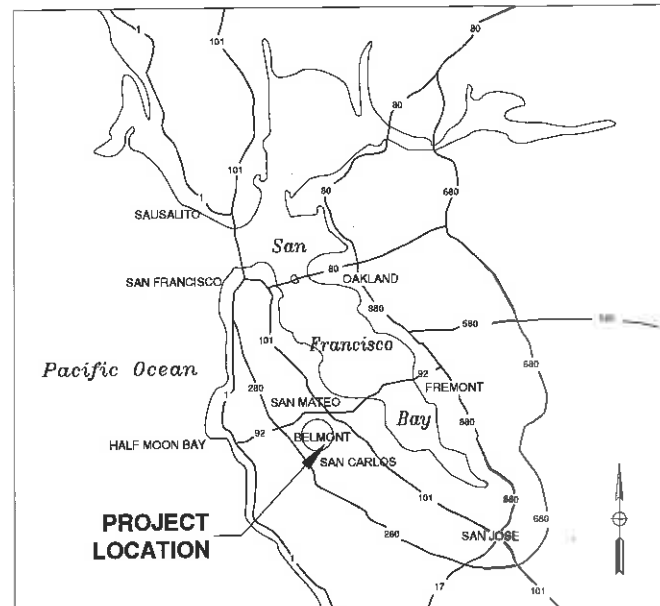
CITY OF BELMONT
SAN MATEO COUNTY, CALIFORNIA
2015 SEWER REHABILITATION PROJECT

PIPELINING, PIPE REPLACEMENT, AND
SPOT REPAIRS AT VARIOUS LOCATIONS

CITY CONTRACT NUMBER 2015-534

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VICINITY MAP

NO SCALE

CITY COUNCIL

MAYOR DAVID BRAUNSTEIN
VICE MAYOR ERIC REED
COUNCILMEMBER CATHY WRIGHT
COUNCILMEMBER CHARLES STONE
COUNCILMEMBER WARREN LIEBERMAN

CITY MANAGER

DIRECTOR OF
PUBLIC WORKS
CITY ATTORNEY
CITY CLERK

STAFF

GREG SCOLE
AFSHIN OSKOU
SCOTT RENNIE
TERRI COOK

APPROVED BY CITY COUNCIL ON

AFSHIN OSKOU - DIRECTOR OF PUBLIC WORKS

MAY 26, 2015

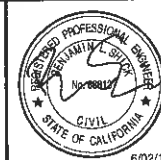


AGENCY INDEX
BELMONT-SAN CARLOS FIRE (650) 363-4963
CITY OF BELMONT - PUBLIC WORKS (650) 595-7427
CITY OF BELMONT - POLICE (650) 595-7400
AT&T (800) 210-2355
PACIFIC GAS & ELECTRIC (800) 743-6000
MID PENINSULA WATER DISTRICT (550) 581-8941
COMCAST (800) 266-2278
ALLIED WASTE (650) 592-2411
SAN MATEO COUNTY TRANSIT DISTRICT (800) 660-4287

NO	REVISIONS	DATE	APPR
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			



Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
1171 HOMESTEAD RD, STE. 255
SANTA CLARA, CA 95050
(408) 246-4848



DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
TITLE SHEET

DATE: 5/29/15
SCALE: AS SHOWN
DESIGN: CLP
DRAWN: CLP
CHECKED: BLS

SHEET
1
OF
19

GENERAL NOTES

1. CONTRACTOR SHALL MAINTAIN A COPY OF THE PROJECT PLANS ON THE JOBSITE AT ALL TIMES.
2. ALL WORK SHALL CONFORM TO THE PROJECT PLANS AND THE CITY OF BELMONT STANDARD DETAIL DRAWINGS FOR CONSTRUCTION AND OTHER SPECIFICATIONS REFERENCED THEREIN.
3. CONTRACTOR SHALL CONDUCT WORK IN ACCORDANCE WITH THE GREENBOOK STANDARD SPECIFICATIONS, CALTRANS STANDARD SPECIFICATIONS, AND CITY'S SPECIFICATIONS.
4. NO CHANGE TO THE PROJECT IMPROVEMENT PLANS SHALL BE PERMITTED WITHOUT PRIOR APPROVAL BY THE CITY ENGINEER AND DESIGN ENGINEER.
5. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT TO THE EXTENT ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OR ENGINEER.
6. CONTRACTOR SHALL SECURE A NO FEE ENCROACHMENT PERMIT FROM THE CITY ENGINEERING DEPARTMENT PRIOR TO COMMENCEMENT OF WORK.
7. ALL DIMENSIONS AND ELEVATIONS ARE APPROXIMATE AND SHALL NOT BE USED FOR CONSTRUCTION. ELEVATIONS ARE BASED ON DATA PROVIDED BY THE CITY. NO SURVEYING WAS PERFORMED AS PART OF THIS PROJECT. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, PIPE SIZES, MATERIAL, ETC. PRIOR TO CONSTRUCTION.
8. IF FIELD ELEVATIONS AND MEASUREMENTS ARE SIGNIFICANTLY DIFFERENT THAN WHAT IS SHOWN ON THE PLANS, CONTRACTOR SHALL NOTIFY THE CITY PRIOR TO PROCEEDING WITH CONSTRUCTION OF THE IMPROVEMENTS. FIELD ADJUSTMENTS MAY BE NECESSARY TO PROVIDE ADEQUATE PIPE SLOPE, PIPE COVER, AND TO CONSTRUCT THE IMPROVEMENTS.
9. NOT ALL EXISTING UTILITIES ARE SHOWN ON THE DRAWINGS. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE AND BASED ON UTILITY MAPS PROVIDED BY THE CITY, AT&T, COMCAST, AND PG&E. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY LOCATE ALL EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES THAT MAY BE AFFECTED BY NEW FACILITIES IN THIS CONTRACT. REPORT POTENTIAL CONFLICTS TO THE CITY ENGINEER PRIOR TO EXCAVATING FOR NEW FACILITIES.
10. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY. CONTACT UNDERGROUND SERVICE ALERT (USA) AT 1-800-227-2600.
11. PROPERTY BOUNDARIES, PROPERTY CORNERS, AND EASEMENTS SHOWN ON THIS SHEET HAVE BEEN PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT MATCH RECORDS OF SURVEY. CONTRACTOR SHALL VERIFY PROPERTY AND EASEMENT INFORMATION PRIOR TO BEGINNING ANY WORK OUTSIDE THE RIGHT-OF-WAY.
12. THE CONTRACTOR SHALL NOTIFY, BY CIRCULAR, ALL BUSINESS ESTABLISHMENTS AND RESIDENCES LOCATED IN AREAS AFFECTED BY THE WORK ONE WEEK PRIOR TO START OF CONSTRUCTION. AT A MINIMUM, ALL RESIDENTS AND BUSINESS ESTABLISHMENTS WITHIN 100 FEET OF THE WORK AREAS SHALL BE NOTIFIED. A DRAFT OF THE CIRCULAR SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
13. ALL SURPLUS AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM PUBLIC RIGHT-OF-WAY.
14. CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL AND KEEP MUD AND DEBRIS OFF THE PUBLIC RIGHT-OF-WAY AT ALL TIMES.
15. ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
16. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT IN THE PUBLIC RIGHT-OF-WAY SHALL NOT BE PERMITTED, EXCEPT AT LOCATION(S) APPROVED BY THE CITY TRAFFIC ENGINEER.
17. CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG MEN, CONES OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY IN ACCORDANCE WITH THE SPECIFICATIONS.
18. THE CONTRACTOR SHALL OBTAIN A PERMIT/WATER METER AND BACKFLOW FROM MID-PENINSULA WATER DISTRICT (MPWD) FOR CONSTRUCTION WATER OBTAINED FROM THE CITY HYDRANT, CALL (650) 591-8941, A FEE AND DEPOSIT WILL BE REQUIRED.
19. CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING AS SPECIFIED IN SPECIFICATION SECTION 01120-1.08.
20. LANE CLOSURE ON RALSTON AVE IS ALLOWED BETWEEN 9 AM AND 3 PM ONLY. THROUGH TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.
21. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY. ALL EXCAVATIONS SHALL BE PLATED WITH NON-SKID PLATES WHEN INACTIVE. BARRICADES WITH LIGHTS SHALL DELINEATE CONSTRUCTION ZONE.
22. CONTRACTOR SHALL COMPLY WITH BEST MANAGEMENT PRACTICES OF CITY'S NPDES PERMIT FOR PROTECTION OF STORM WATER QUALITY.
23. VIDEOS OF THE PIPES TO BE REHABILITATED ARE ON FILE WITH THE DEPARTMENT OF PUBLIC WORKS. THEY ARE AVAILABLE FOR REVIEW PRIOR TO BID SUBMISSION.
24. CONTRACTOR SHALL VISIT SITES PRIOR TO SUBMITTING BID. SOME LOCATIONS ARE NOT EASILY ACCESSIBLE.
25. NO ADDITIONAL COST WILL BE PAID BY THE CITY FOR CONDITIONS THAT ARE REVEALED IN THE PIPELINE VIDEOS AND SITE VISIT.
26. RIM AND INVERT ELEVATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND BASED ON UTILITY MAPS PROVIDED BY THE CITY. THE CONTRACTOR SHALL VERIFY EXISTING GRADES AND CONSTRUCT (N) PIPES WITH CONTINUOUS SLOPE BETWEEN (E) MH INVERT ELEVATIONS, UNLESS OTHERWISE NOTED.

GENERAL NOTES (CONTINUED)

27. STATIONING IS BASED ON STRAIGHT HORIZONTAL DISTANCES FROM CENTER OF MANHOLES. LATERAL LOCATIONS ARE INDICATED LOOKING UP STATION (W/ INCREASING VALUES).
28. CONTRACTOR SHALL CONFIRM ALL LATERAL LOCATIONS PRIOR TO CONSTRUCTION.
29. CONTRACTOR SHALL PROVIDE RESIDENTS NOTICE OF ANY SEWER SHUT DOWNS IN ACCORDANCE WITH SPECIFICATION SECTION 01120-1.07.
30. SEWERS TO BE REPLACED USING TRENCHED METHODS SHALL HAVE LATERAL CONNECTIONS REPLACED PER DETAIL 5 ON SHEET 19. ABANDON CAPPED LATERALS. REFER TO ADDITIONAL NOTES ON THIS SHEET FOR PIPE LINING.
31. SEWER SERVICE SHALL BE RESTORED BEFORE THE END OF EACH WORKING DAY. REFER TO SPECIFICATION SECTION 01120-1.07 FOR ADDITIONAL INFORMATION.

WATER SEPARATION

1. LOCATIONS WHERE NEW PVC SEWER MAIN IS TO BE CONSTRUCTED MUST MEET THE FOLLOWING REQUIREMENTS WHERE HORIZONTAL SEPARATION WITH THE WATER MAIN IS LESS THAN 10 FEET:

1.1. LOCATIONS WHERE HORIZONTAL SEWER AND WATER MAIN SEPARATION DISTANCE IS BETWEEN 4 FEET AND 10 FEET: PVC SEWER PIPES SHALL BE INSTALLED WITH RUBBER RING JOINTS.

1.2. LOCATIONS WHERE HORIZONTAL SEWER AND WATER MAIN SEPARATION DISTANCE IS BETWEEN 1 FEET AND 4 FEET: PVC SEWER PIPES SHALL BE INSTALLED WITH RUBBER RING JOINTS AND TRENCH BACKFILL SHALL BE CDF PER DETAIL 5 ON SHEET 18.

1.3. LOCATIONS WHERE SEWER CROSSES UNDER WATER MAIN: NOTIFY ENGINEER IF VERTICAL CLEARANCE OF 1 FOOT CANNOT BE ACHIEVED. BACKFILL TRENCH WITH CDF.

PIPE LINING

1. PIPES INDICATED TO BE LINED SHALL BE LINED WITH CURED IN PLACE PIPE PER SPECIFICATION SECTION 02900.
2. REPAIR LATERALS: LATERALS INDICATED TO BE REPAIRED SHALL BE REPAIRED PER DETAIL 7 ON SHEET 18 PRIOR TO LINING AND REACTIVATED AFTER LINING SEWER MAIN PER SPECIFICATION SECTION 02900-3.01.
3. REINSTATE LATERALS: LATERALS INDICATED TO BE REINSTATED SHALL BE REACTIVATED PER SPECIFICATION SECTION 02900-3.01.
4. LATERALS EXTENDING INTO THE SEWER MAIN SHALL BE REPAIRED PRIOR TO INSTALLING CIPP.
5. LATERALS THAT THE CONTRACTOR CONFIRMS ARE CAPPED OR INACTIVE, SHALL NOT BE REINSTATED.

MATERIALS

1. ALL DISTURBED PAVEMENT STRIPING AND MARKERS SHALL BE REPLACED BY THE CONTRACTOR. ALL DISTURBED MARKINGS AND STENCILS SHALL BE REPLACED IN FULL. ALL STRIPING, MARKINGS AND STENCILS SHALL BE THERMOPLASTIC. PAVEMENT STRIPING AND MARKINGS SHALL ADHERE TO THE CALTRANS STANDARD SPECIFICATIONS SECTIONS 84 AND 85.

ARBORIST NOTES AND TREE PRESERVATION

1. NO CUTTING OF ANY PART OF PRIVATE OR CITY TREES, INCLUDING ROOTS, SHALL BE DONE WITHOUT SECURING APPROVAL AND DIRECT SUPERVISION FROM THE CITY ARBORIST.
2. CONTRACTOR SHALL NOTIFY CITY ARBORIST 72 HOURS IN ADVANCE OF ANY WORK REQUIRING DIGGING AROUND OR WITHIN THE DRIP LINE OF EXISTING TREES.
3. NO TRENCHING SHALL BE DONE WITHIN THE DRIP LINE OF EXISTING TREES WITHOUT THE APPROVAL OF THE CITY ARBORIST. OPEN TRENCHING IN THE ROOT ZONE OF A PUBLIC TREE IS PROHIBITED EXCEPT IN CASES WHERE THE TRENCHING FALLS OUTSIDE THE DRIP LINE OF THE TREE INVOLVED. EXCEPTIONS WILL BE ALLOWED IF, IN THE OPINION OF THE CITY ARBORIST, THE IMPACT OF TRENCHING UPON THE TREE WILL BE NEGLIGIBLE.
4. IF INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, IT MUST BE REPORTED TO THE CITY/PROJECT ARBORIST WITHIN 6 HOURS SO THAT APPROPRIATE TREATMENTS CAN BE APPLIED. THE CITY ARBORIST/PROJECT ARBORIST SHALL BE THE SOLE JUDGE OF THE CONDITION OF ANY TREE.
5. NO MATERIALS, EQUIPMENT, FUELS, PAINT, SPOIL, WASTE OR WASH-OUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE DRIP-LINE OF A TREE.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO CLEAR VEGETATION AS REQUIRED FOR ACCESS TO THE SITES. NO ADDITIONAL COST SHALL BE PAID BY THE CITY FOR THIS WORK.

POTHOLING

1. THE CONTRACTOR SHALL POTHOLE ALL UTILITIES THAT MAY CONFLICT WITH SEWER ALIGNMENT AS FIRST ORDER OF WORK AND PRIOR TO EXCAVATING AS DESCRIBED BELOW:

1.1. OPEN TRENCH EXCAVATION LOCATIONS:

1.1.1. POTHOLE INFORMATION IS SHOWN ON THE PLANS AND DETAILED IN APPENDIX A OF THE SPECIFICATIONS.

1.1.2. CONTRACTOR SHALL POTHOLE ALL UTILITIES THAT MAY CONFLICT WITH THE SEWER ALIGNMENT PRIOR TO EXCAVATING. WATER MAINS PREVIOUSLY POTHOLED BY THE CITY SHALL NOT BE POTHOLED. AT A MINIMUM, THIS INCLUDES ANY UNDERGROUND GAS MAINS, ELECTRICAL, AND FIBER OPTIC CABLE CROSSING THE SEWER.
- 1.2. PIPE LINING LOCATIONS:

1.1.1. CONTRACTOR SHALL POTHOLE ALL CROSSING UTILITIES IN LOCATIONS WHERE EXCAVATIONS ARE REQUIRED TO REPLACE LATERALS OR PERFORM SPOT REPAIRS.





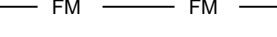

















2. SEE TECHNICAL SPECIFICATIONS SECTION 01120-1.03 FOR ADDITIONAL REQUIREMENTS.

POTHOLE DATA

POTHOLE #	SHEET #	UTILITY	SIZE	MATERIAL	DEPTH TO TOP OF PIPE
PH 1	13	WATER	6"	CI	27.5"
PH 2	13	WATER	6"	CI	37"
PH 3	13	WATER	6"	CI	38"
PH 4	13	WATER	6"	CI	37"
PH 5	14	WATER	6"	PVC	47"
PH 6	14	WATER	6"	PVC	44"
PH 7	14	WATER	6"	PVC	50"
PH 8	14	WATER	4"	CI	30"
PH 9	14	WATER	4"	CI	30"
PH 10	12	WATER	6"	CI	34"
PH 11	12	WATER	6"	CI	38"
PH 12	10	WATER	6"	CI	28"
PH 14	10	WATER	6"	CI	33"
PH 16	10	WATER	2"	CI	48"
PH 17	8	WATER	6"	CI	27"
PH 18	9	WATER	8"	CI	47"

REFER TO POTHOLE REPORT IN APPENDIX A OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LEGEND

	EXISTING	PROPOSED
CONTOUR		
STORM DRAIN		
SANITARY SEWER		
FORCE MAIN		
WATER LINE		
GAS LINE		
UNDERGROUND ELECTRICAL		
UNDERGROUND TELECOMMUNICATION		
OVERHEAD ELECTRICAL/ TELECOMMUNICATION		
EDGE OF PAVEMENT		
SIDEWALK / BUILDING		
FENCE		
SANITARY SEWER MANHOLE		
STORM DRAIN MANHOLE		
STORM DRAIN INLET		
WATER VALVE		
FIRE HYDRANT		
SURVEY MONUMENT		
PROPERTY LINE		
POTHOLE LOCATION		PH #

ABBREVIATIONS

AB	AGGREGATE BASE	MIN	MINIMUM
ABS	ABSOLUTE	(N)	NEW
AC	ASPHALTIC CONCRETE	N	NORTH
ACP	ASPHALTIC CONCRETE PIPE	NTS	NOT TO SCALE
APPROX	APPROXIMATE	OD	OUTSIDE DIAMETER
APN	ASSESSORS PARCEL NUMBER	PCC	PORTLAND CEMENT CONCRETE
ASPH	ASPHALT	PDWF	PEAK DRY WEATHER FLOW
CB	CATCH BASIN	PH	POTHOLE
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
CDF	CONTROLLED DENSITY FILL	(P)	PROPOSED
CMP	CORRUGATED METAL PIPE	PUE	PUBLIC UTILITY EASEMENT
CVR	COVER	PWWF	PEAK WET WEATHER FLOW
CI	CAST IRON	Q	FLOW RATE
CIP	CAST IRON PIPE	R	RADIUS
CIPP	CURED IN PLACE PIPE	RCB	REINFORCED CONCRETE BOX
DEG	DEGREE	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	REINF.	REINFORCED, REINFORCING
DIP	DUCTILE IRON PIPE	REL	RELATIVE
DE	DRAINAGE EASEMENT	REQD	REQUIRED
DEPT.	DEPARTMENT	RT.	RIGHT
DO	DOWN STREAM	S	SOUTH
E	EAST	SD	STORM DRAIN
ELEV, EL	ELEVATION	SPECS	SPECIFICATIONS
EXIST, (E)	EXISTING	SS	STAINLESS STEEL, SANITARY SEWER
FL	FLOW LINE	STD	STANDARD
FT	FOOT	SDR	STANDARD DIMENSION RATIO
GND	GROUND	STA	STATION
HDPE	HIGH DENSITY POLYETHYLENE	SD	STORM DRAIN
HORIZ.	HORIZONTAL	SDE	STORM DRAIN EASEMENT
I.D.	INSIDE DIAMETER	TG	TOP GRATE
INV	INVERT	TYP	TYPICAL
L	LENGTH	UP	UP STREAM
LF	LINEAR FOOT	VCP	VITRIFIED CLAY PIPE
LT.	LEFT	VER.	VERTICAL
MH	MANHOLE	W	WEST, WATER
MAX	MAXIMUM	W/	WITH
		X-ING	CROSSING

 REVISED WITH POTHOLE DATA

NO	REVISIONS	DATE	APPR				
	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS				
							
							
							
							
							
							



BELMONT, CALIFORNIA

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
1171 HOMESTEAD RD, STE. 255
SANTA CLARA, CA 95050
(408) 246-4848

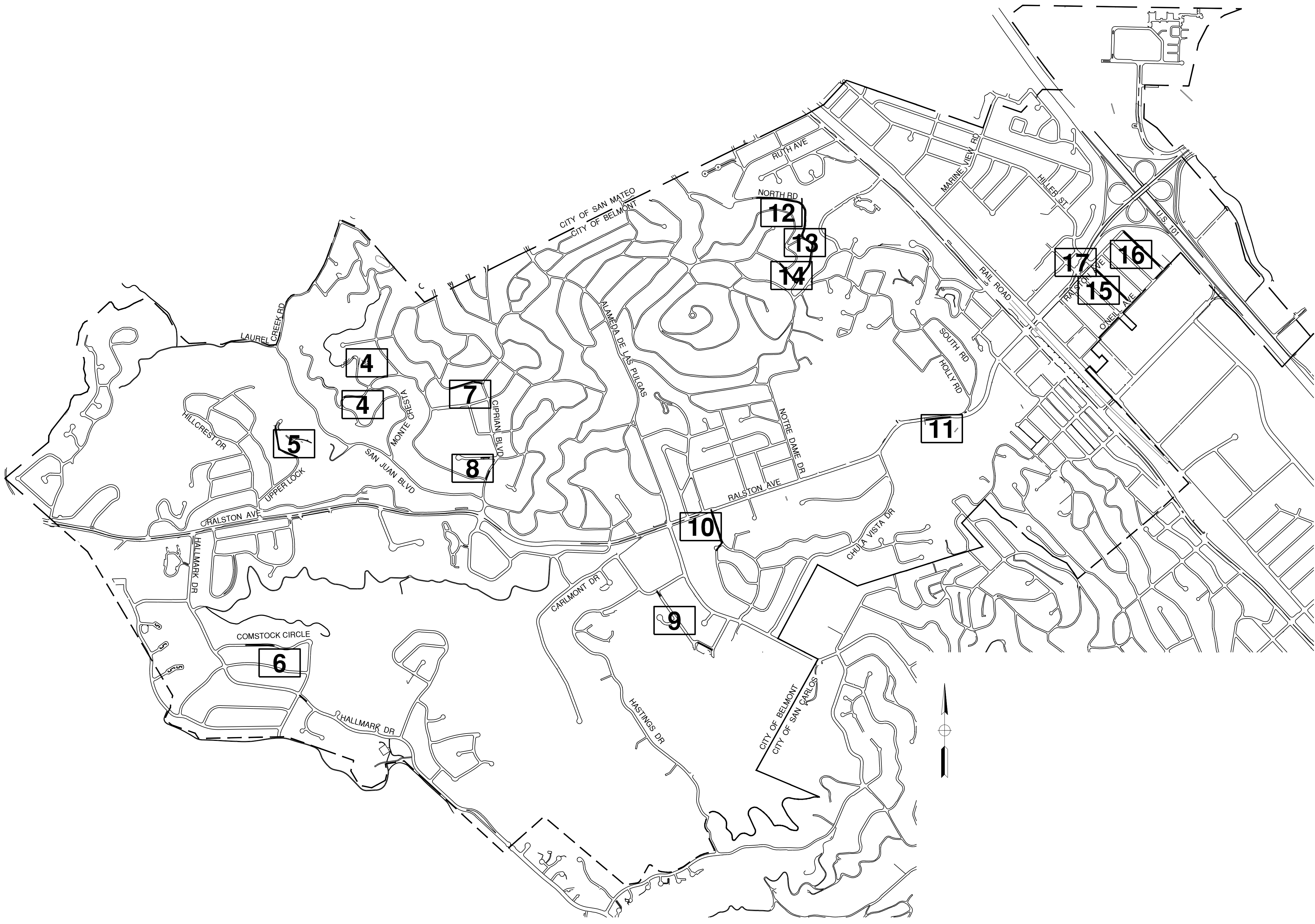


6/02/15

DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
NOTES

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
2
OF
19



INDEX MAP
SCALE: 1"=1,000'

INDEX

TITLE	SHEET NO.
BARCLAY WAY & MONTE CRESTA DR	4
UPPER LOCKE AVE	5
HALLMARK DR & COMSTOCK CIRCLE	6
LINCOLN AVE	7
CIPRIANI BLVD & PONCE AVE	8
GERALDINE WAY & VILLAGE DR	9
MAYWOOD DR & LADERA WAY	10
1300 RALSTON AVE	11
NORTH RD	12
NORTH RD	13
NORTH RD & WILLIAMS AVE	14
HILLER ST	15
KEDITH ST	16
361 RALSTON AVE	17

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
1171 HOMESTEAD RD, STE. 255
SANTA CLARA, CA 95050
(408) 246-4848



DEPT. OF PUBLIC WORKS CCN 2015-534
**2015 SEWER
REHABILITATION PROJECT
MAP INDEX**

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

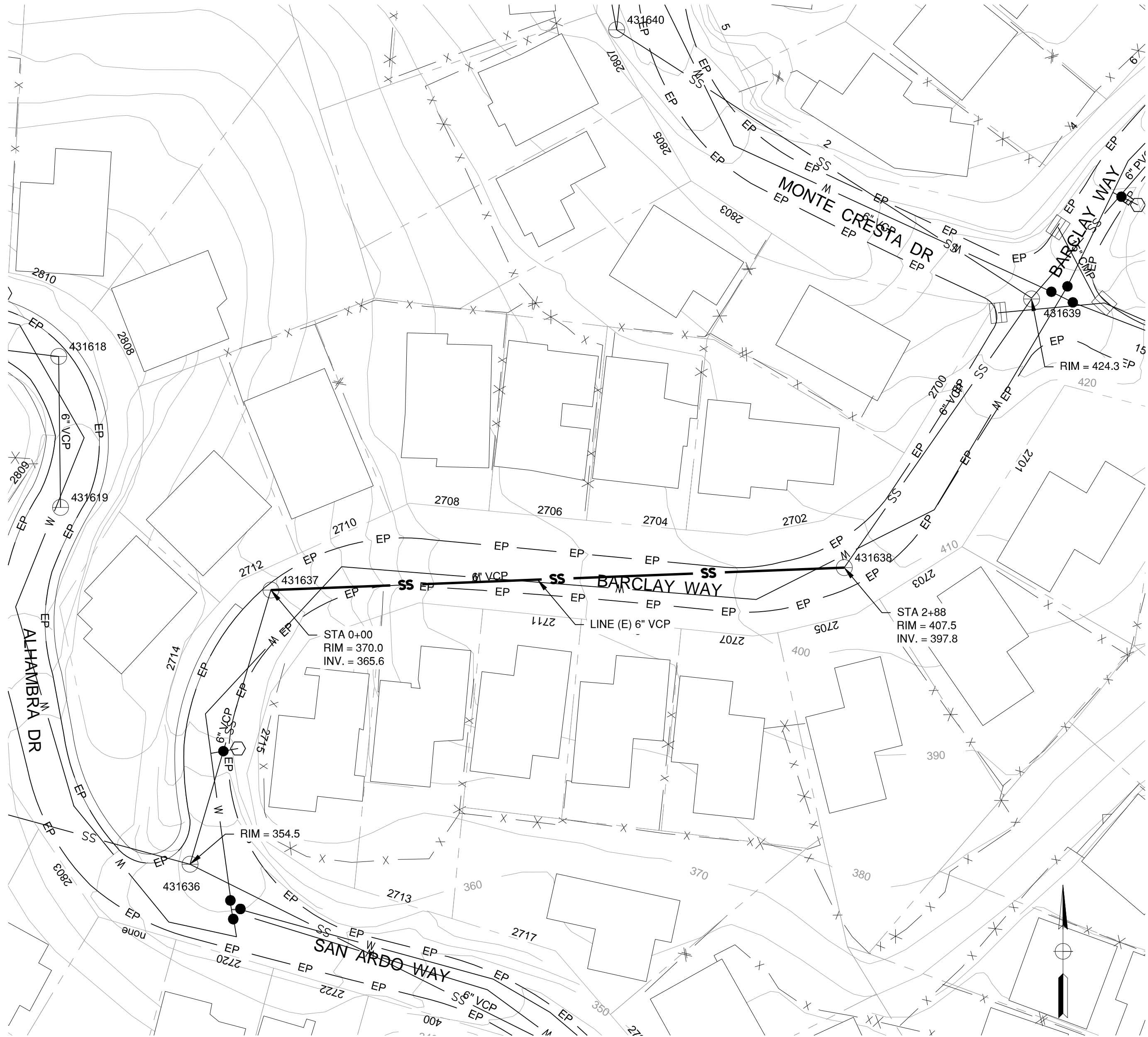
SHEET
3
OF
19

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
431638	431637	0+13	LEFT	REINSTATE	
431638	431637	0+58	RIGHT	REPAIR	ROOTS
431638	431637	0+62	LEFT	REPAIR	ROOTS
431638	431637	0+67	LEFT	REPAIR	ROOTS
431638	431637	1+04	RIGHT	REINSTATE	
431638	431637	1+07	LEFT	REINSTATE	
431638	431637	1+47	RIGHT	REINSTATE	
431638	431637	1+57	LEFT	REPAIR	ROOTS
431638	431637	1+60	RIGHT	REINSTATE	
431638	431637	1+94	RIGHT	REPAIR	ROOTS
431638	431637	2+10	LEFT	REINSTATE	
431638	431637	2+37	RIGHT	REPAIR	ROOTS

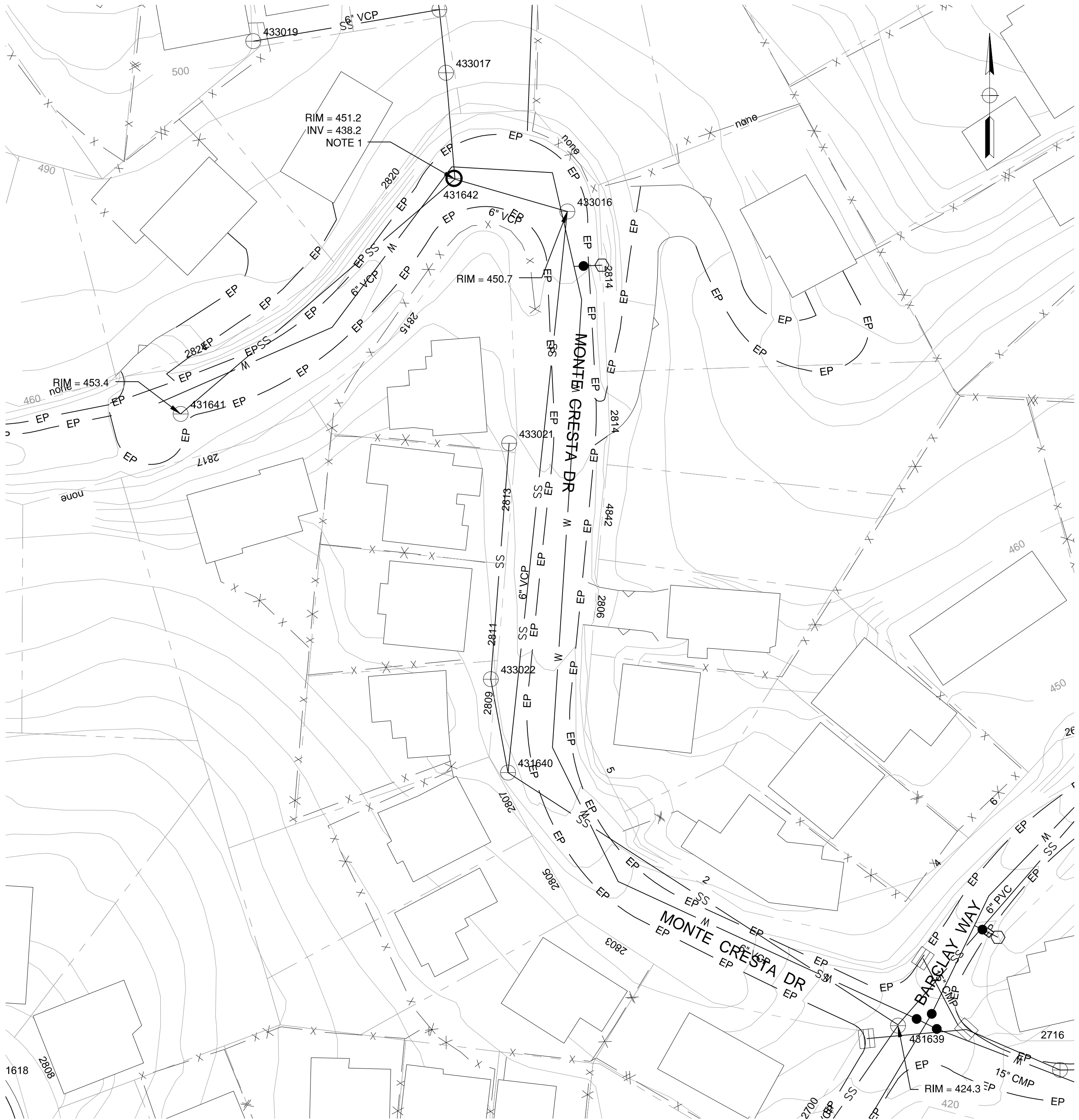
SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
431638	431637	20.4	117.1

NOTES

- (E) MH 431642 IS EXPERIENCING SEVERE ROOT INTRUSION SURROUNDING THE INFLUENT PIPE PENETRATION. CONTRACTOR SHALL REMOVE ALL (E) ROOTS AND DEBRIS FROM MH, GROUT AROUND INFLOW AND OUTFLOW PIPES AND REHABILITATE MH PER SPECIFICATION SECTION 09900.
- MODIFICATIONS TO THE EXISTING PIPE OUTSIDE THE MANHOLE IS NOT REQUIRED ON MONTE CRESTA DR.



BARCLAY WAY
SCALE: 1" = 40'



MONTE CRESTA DR
SCALE: 1" = 40'

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



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SANTA CLARA, CA 95050
(408) 246-4848



DEPT. OF PUBLIC WORKS CCN 2015-534
**2015 SEWER
REHABILITATION PROJECT
BARCLAY WAY & MONTE CRESTA DR**

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

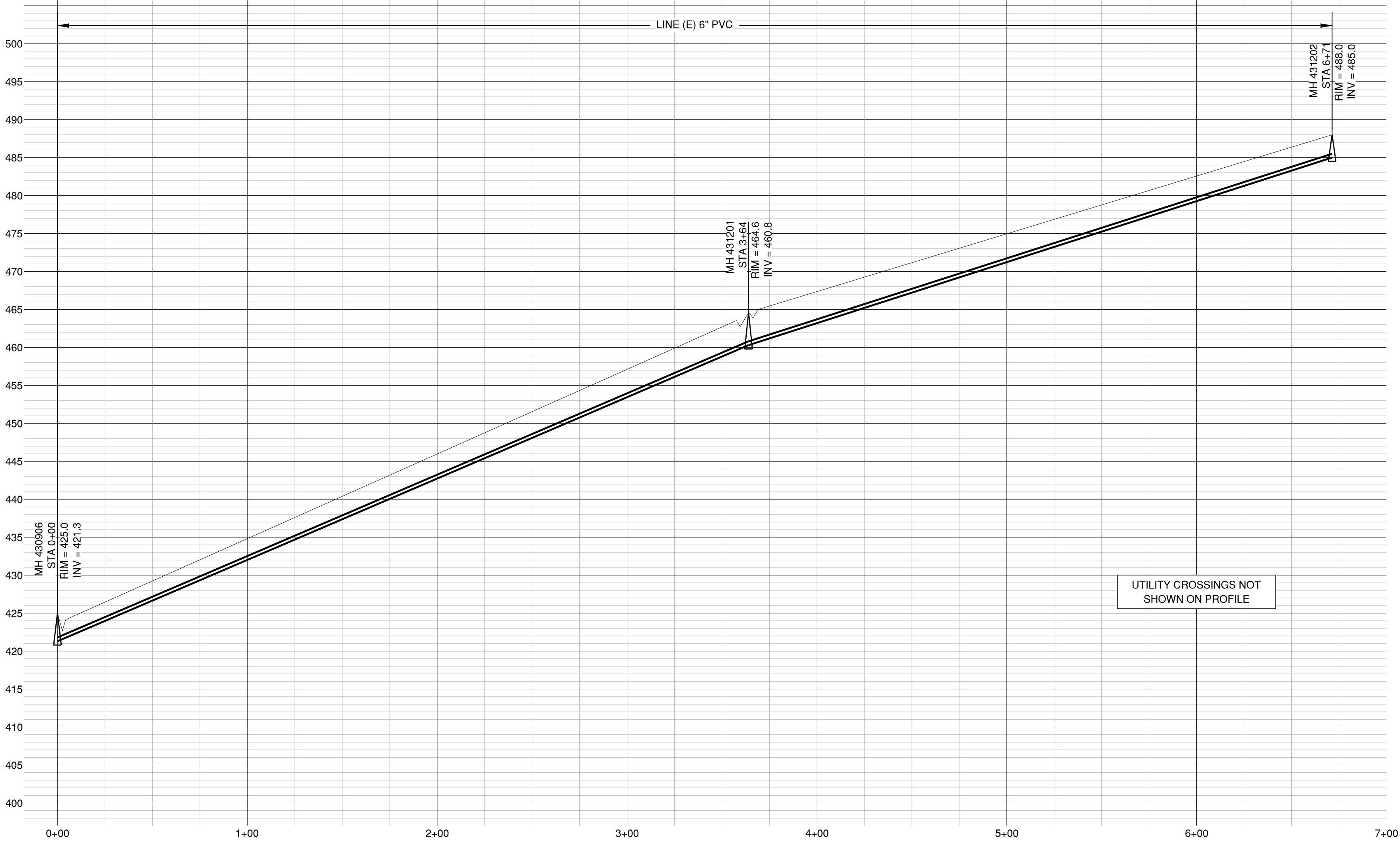
SHEET
4
OF
19

NOTES

1. STREET WIDTH NARROWS TO ONE LANE & HAS DENSE VEGETATION/LOW HANGING TREE BRANCHES.
2. REPAIR MEDIUM JOINT OFFSET AT STA 3+55± AND 3+58± PER DETAIL 8 ON SHEET 18.
3. CONTRACTOR SHALL PROVIDE NOTICE TO LOCAL RESIDENTS OF ANY POTENTIAL ROADWAY DELAYS. UNDER NO CIRCUMSTANCE SHALL CONTRACTOR DELAY LOCAL TRAFFIC BY MORE THAN 10 MINUTES.
4. PRIOR TO LINING EXISTING PIPE CONTRACTOR SHALL FIELD VERIFY THAT ALL LATERALS SHOWN TO BE ABANDONED ARE INACTIVE.
5. 8.5 FT± WIDE GRAVEL ROAD.
6. MH 432008 IS LOCATED ON A SLOPE PROTECTED BY A SAND BAG RETAINING WALL. DISTANCE FROM ROAD GRADE TO MH RIM = 50"±. DISTANCE FROM MH RIM TO INVERT = 71"±.
7. REPAIR JOINT OFFSET 10 FT± UPSTREAM FROM MH 432008 PER DETAIL 8 ON SHEET 18.

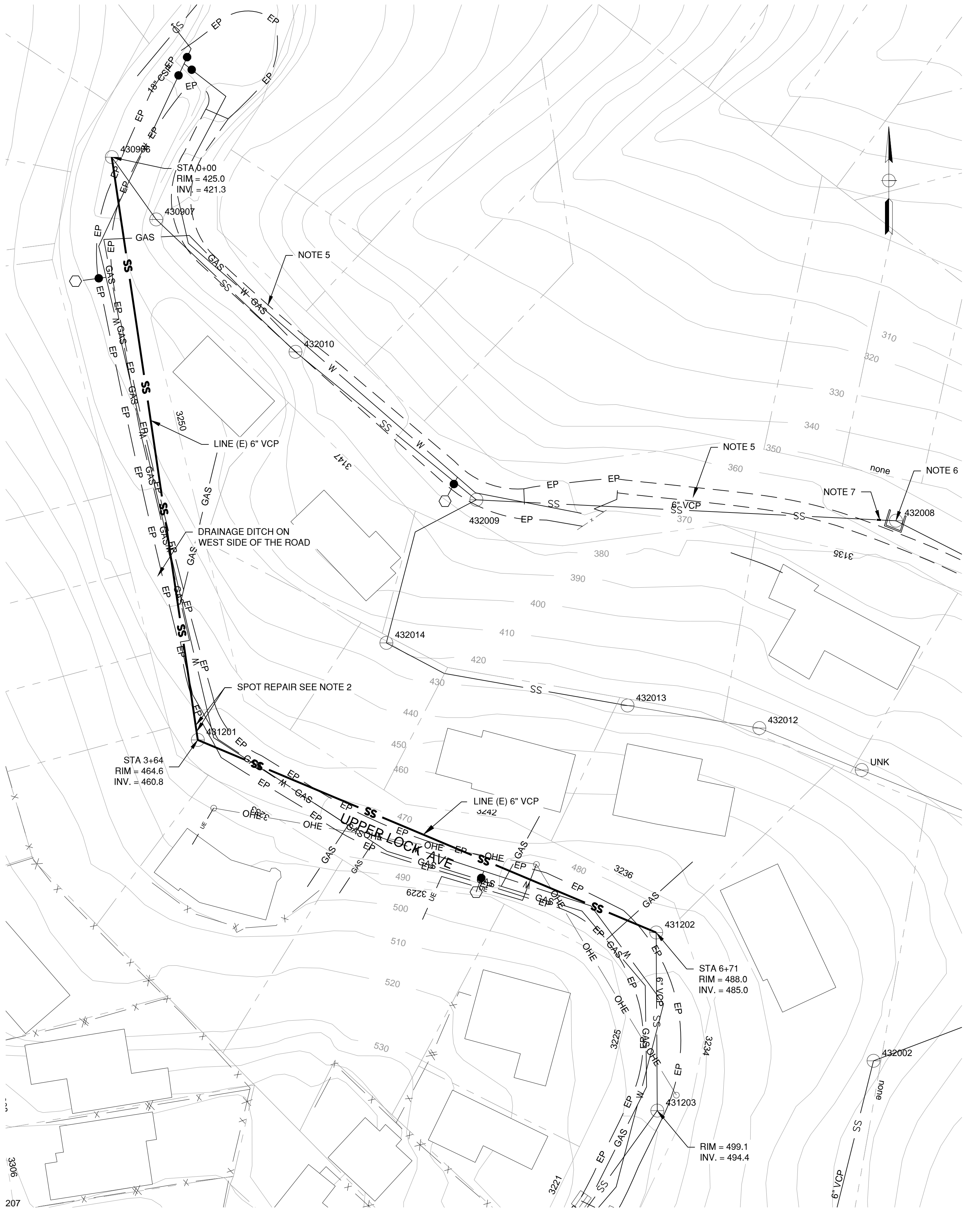
SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
431202	431201	9.1	52.6

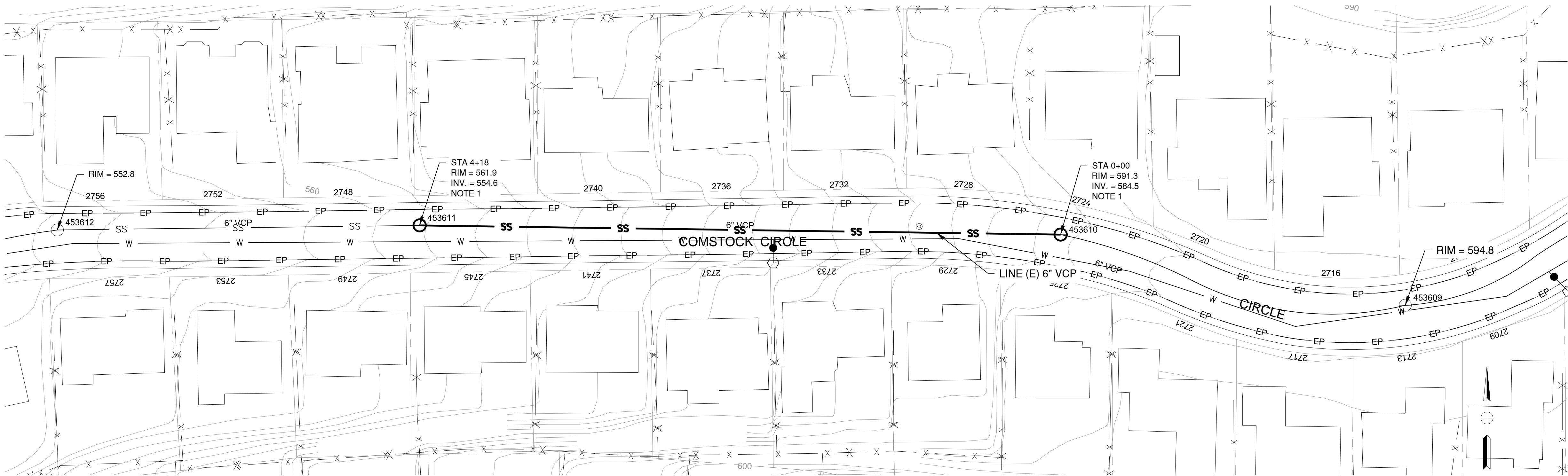
LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
431201	430906	0+39	RIGHT	ABANDON	
431201	430906	0+60	RIGHT	ABANDON	ROOTS
431201	430906	0+95	RIGHT	ABANDON	ROOTS
431201	430906	1+42	RIGHT	ABANDON	ROOTS
431201	430906	1+97	RIGHT	ABANDON	ROOTS
431201	430906	2+47	RIGHT	ABANDON	
431201	430906	2+98	RIGHT	ABANDON	
431201	430906	3+49	RIGHT	ABANDON	
431202	431201	3+84	RIGHT	REINSTATE	
431202	431201	4+20	RIGHT	REINSTATE	
431202	431201	4+67	RIGHT	REINSTATE	
431202	431201	5+00	RIGHT	REINSTATE	
431202	431201	5+25	RIGHT	ABANDON	CAPPED
431202	431201	5+29	RIGHT	REINSTATE	
431202	431201	5+84	RIGHT	REINSTATE	



PROFILE

HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'





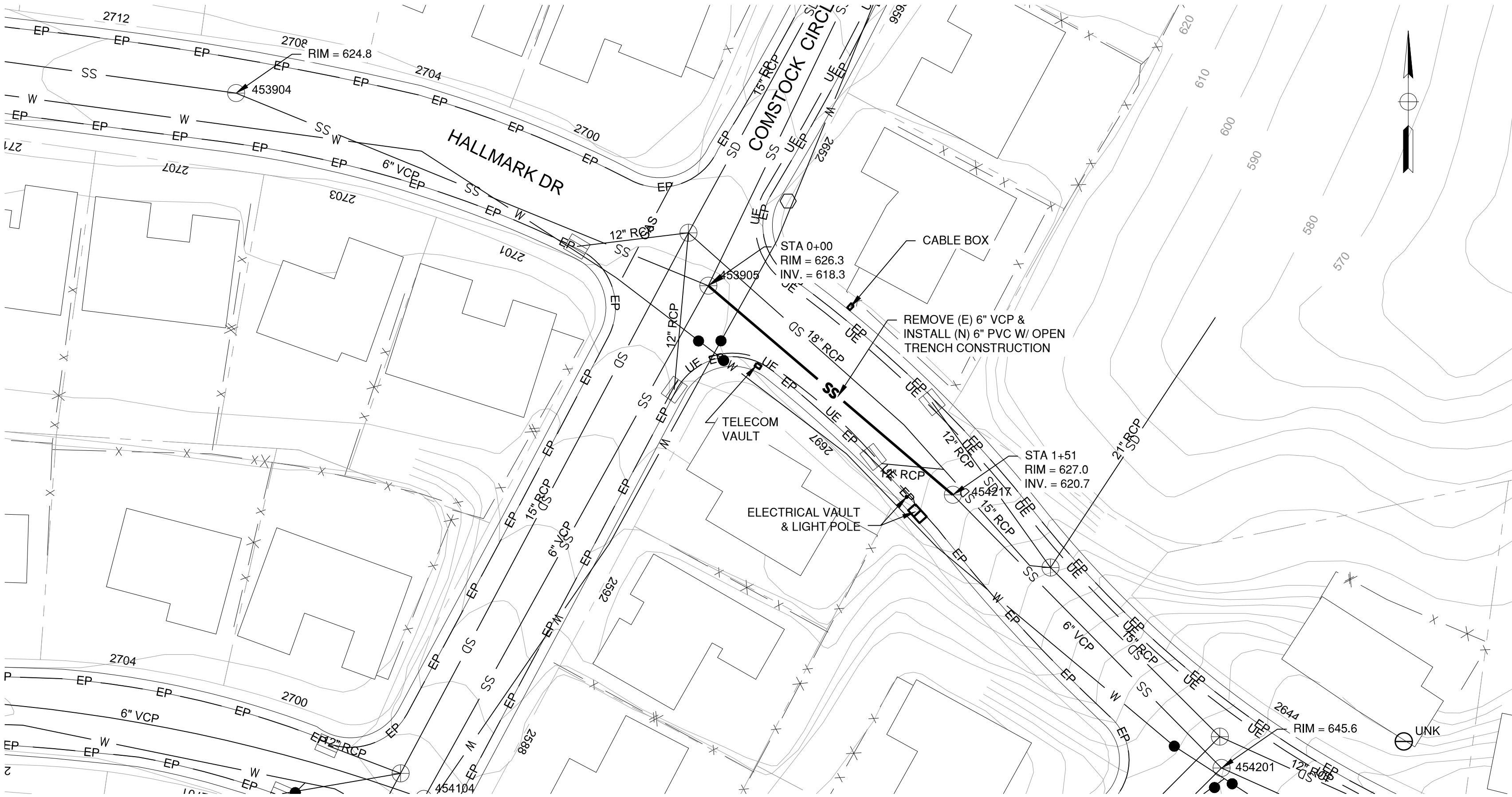
SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
454217	453905	11.3	54.3
453610	453611	28.7	138.1

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
453610	453611	0+77	RIGHT	REINSTATE	
453610	453611	0+83	LEFT	REINSTATE	
453610	453611	1+55	RIGHT	REINSTATE	
453610	453611	1+61	LEFT	REINSTATE	
453610	453611	2+37	RIGHT	REINSTATE	
453610	453611	2+43	LEFT	REINSTATE	
453610	453611	3+18	RIGHT	REINSTATE	
453610	453611	3+24	LEFT	REINSTATE	
453610	453611	3+46	RIGHT	REINSTATE	
453610	453611	3+88	RIGHT	REINSTATE	
453610	453611	4+02	LEFT	REINSTATE	

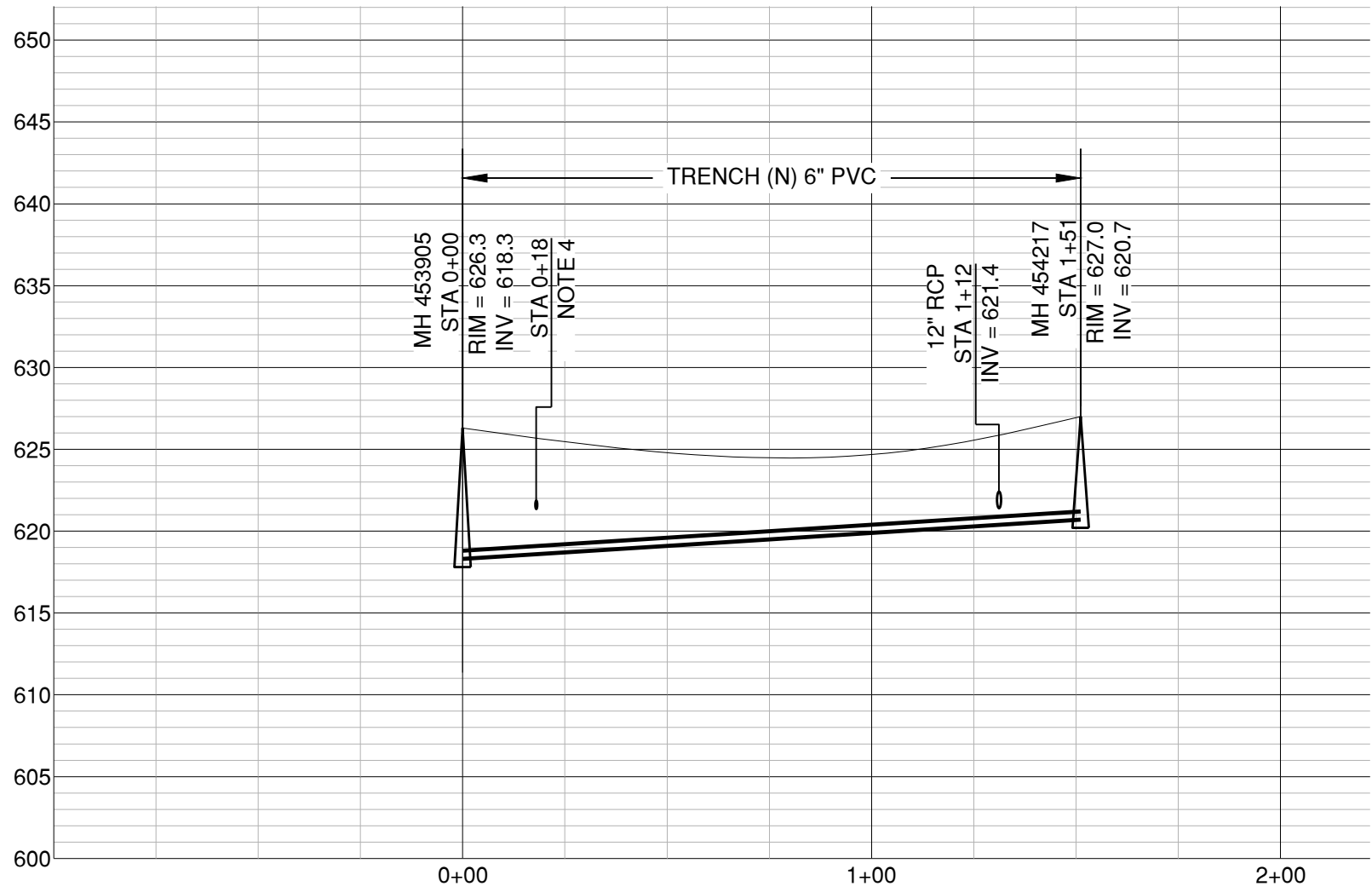
COMSTOCK CIRCLE
SCALE: 1" = 40'

NOTES

- REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- NOT USED.
- NOT USED.
- 48"± FROM EXISTING GRADE TO TOP OF 6"Ø WATER.



HALLMARK DR
SCALE: 1" = 40'



HALLMARK DR PROFILE
HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'

REVISION OF UNDERGROUND UTILITY LOCATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



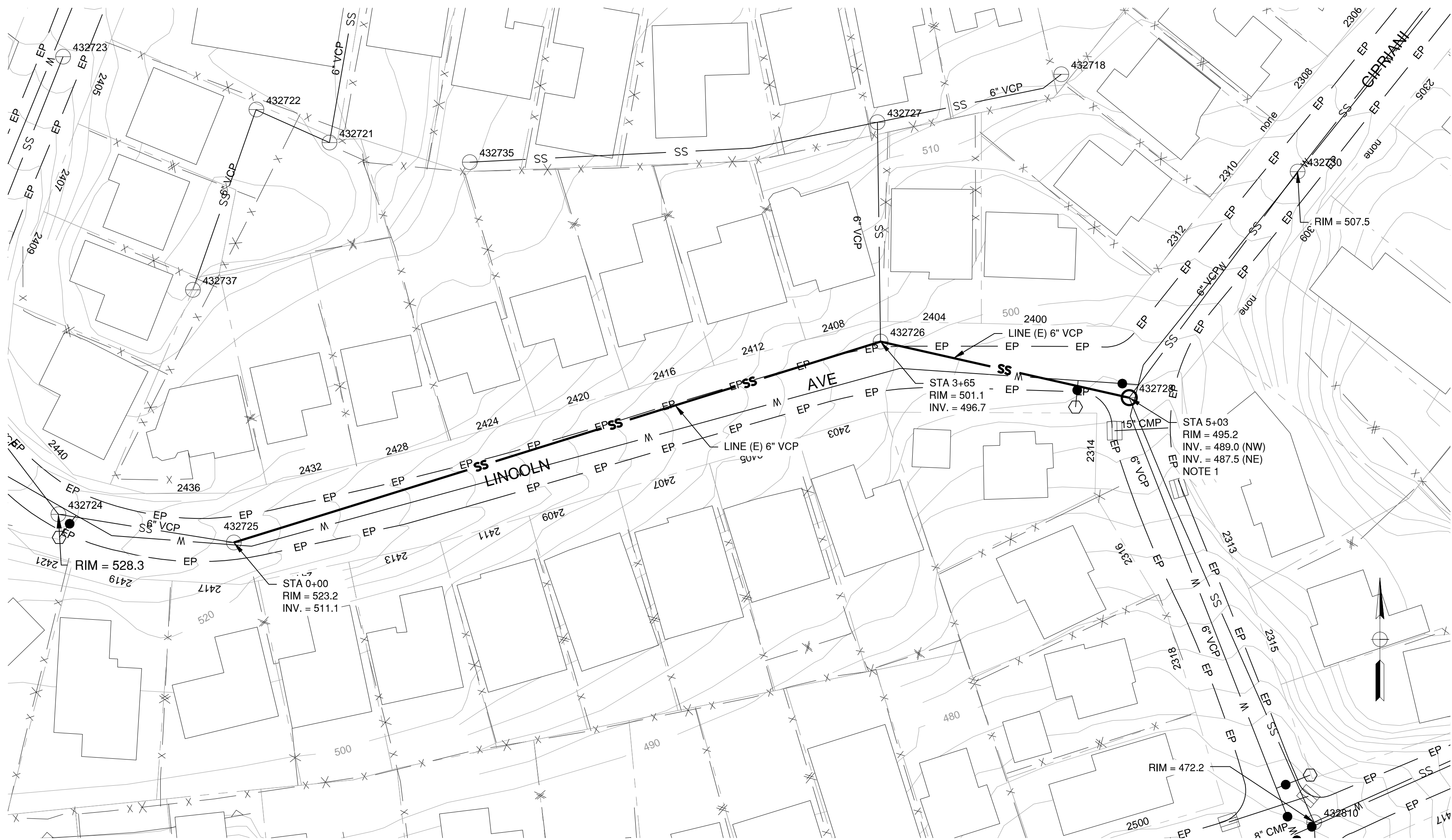
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DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
HALLMARK DR & COMSTOCK CIRCLE

DATE: 5/29/15
SCALE: AS SHOWN
DESIGN: CLP
DRAWN: CLP
CHECKED: BLS

SHEET
6
OF
19



LINCOLN AVE
SCALE: 1" = 40'

NOTES

1. REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
432725	432726	0+23	LEFT	REPAIR	POOR CONNECTION
432725	432726	0+46	X	REINSTATE	
432725	432726	0+49	RIGHT	ABANDON	CAPPED
432725	432726	0+76	LEFT	REINSTATE	
432725	432726	0+89	RIGHT	REINSTATE	
432725	432726	0+97	RIGHT	ABANDON	CAPPED
432725	432726	1+24	LEFT	REPAIR	ROOTS
432725	432726	1+52	RIGHT	REINSTATE	
432725	432726	1+72	LEFT	REINSTATE	
432725	432726	2+03	RIGHT	REPAIR	ROOTS
432725	432726	2+23	RIGHT	REPAIR	ROOTS
432725	432726	2+27	LEFT	ABANDON	CAPPED
432725	432726	2+55	RIGHT	REPAIR	ROOTS
432725	432726	2+75	LEFT	REPAIR	ROOTS
432725	432726	3+13	RIGHT	REPAIR	ROOTS
432725	432726	3+25	LEFT	REPAIR	ROOTS
432725	432726	3+53	RIGHT	REINSTATE	
432726	432728	3+93	LEFT	REPAIR	PROTRUDES
432726	432728	4+63	X	REPAIR	PROTRUDES

SEWER FLOWS			
UP MH	DO MH	PDWF	PWWF
		Q (gpm)	Q (gpm)
432725	432726	24.4	93.0
432726	432728	27.3	104.1

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



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2015 SEWER
REHABILITATION PROJECT
LINCOLN AVE

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

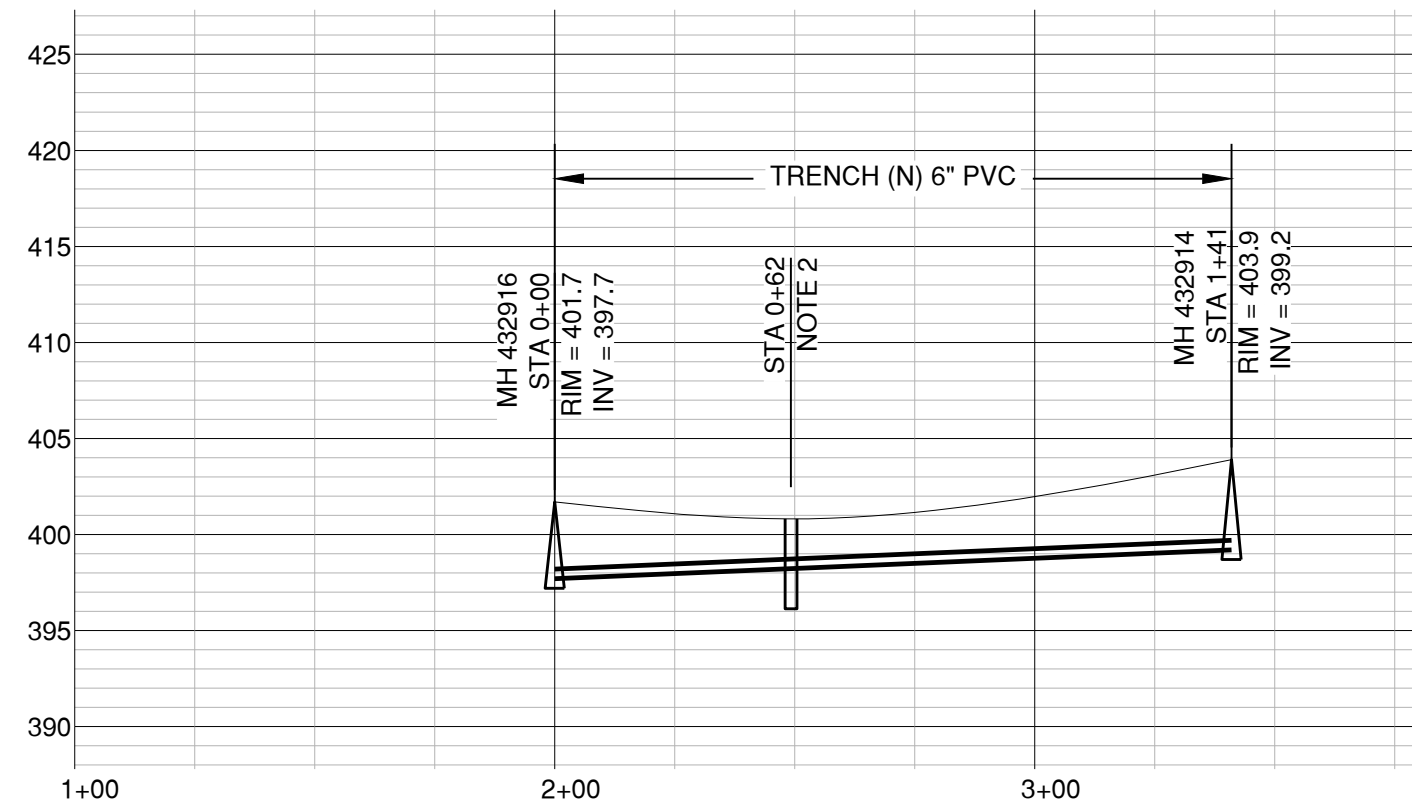
SHEET
7
OF
19

NOTES

1. REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
2. 3 FT± WIDE TRENCH DRAIN 56"± DEEP, SS INV. CROSSES SD AT A DEPTH OF 32"±. INSTALL (N) CASING ACROSS TRENCH DRAIN PER DETAIL 9 ON SHEET 18.
3. LINE (E) SEWER TO MH 432910. REINSTATE DROPPED INVERT OPENING. DO NOT LINE (E) DROPPED INVERT.
4. (E) ABANDONED 4" CAST IRON PIPE WATER LINE.

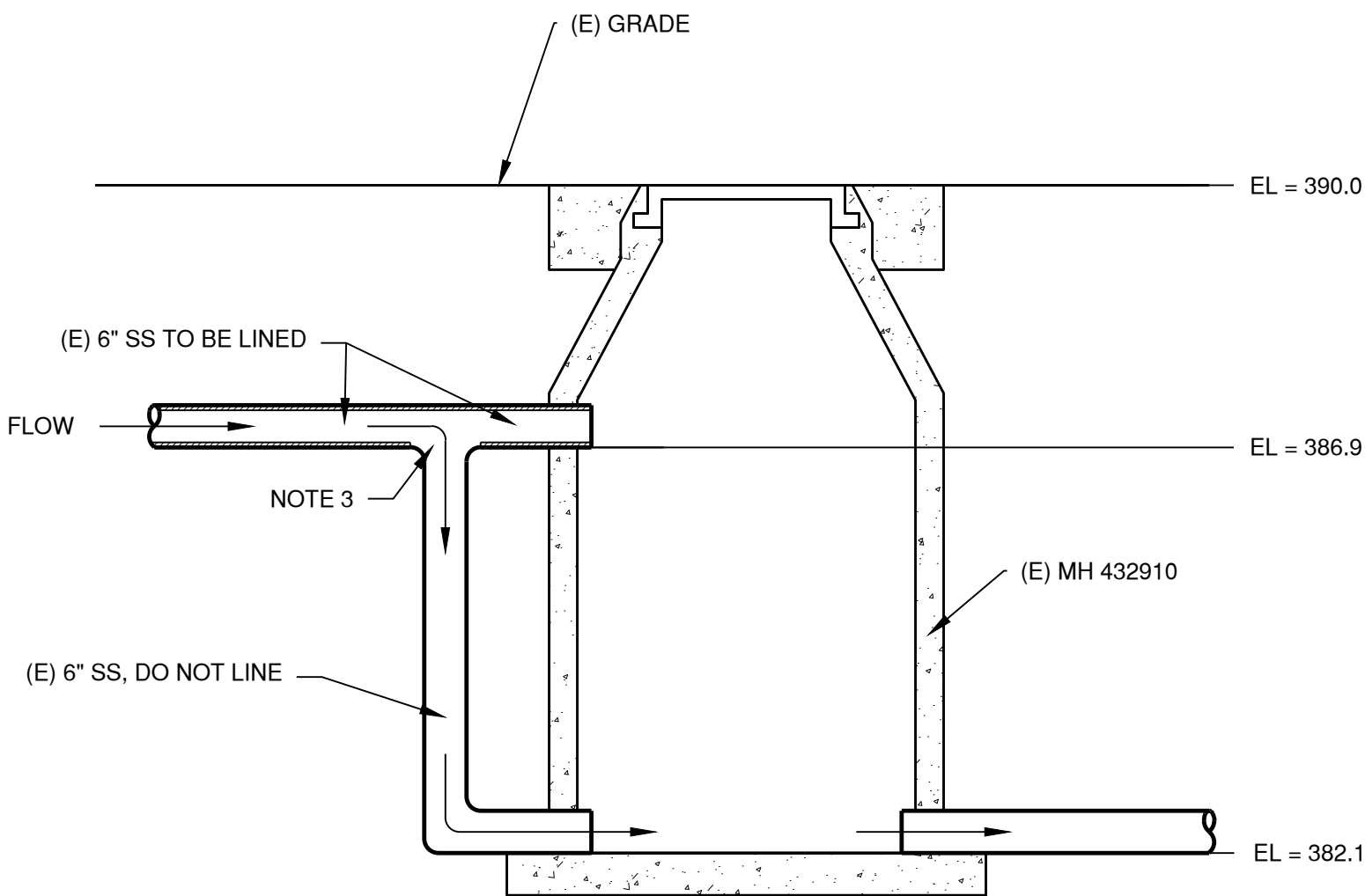
SEWER FLOWS			
UP MH	DO MH	PDWF	PWWF
		Q (gpm)	Q (gpm)
432911	432910	55.1	210.4
432914	432916	1.2	4.4

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
432914	432916	0+44	LEFT		CRACKS
432914	432916	0+88	LEFT		
432911	432910	10+59	LEFT	REPAIR	ROOTS
432911	432910	11+27	LEFT	REINSTATE	
432911	432910	11+30	X	REINSTATE	DROPPED INVERT



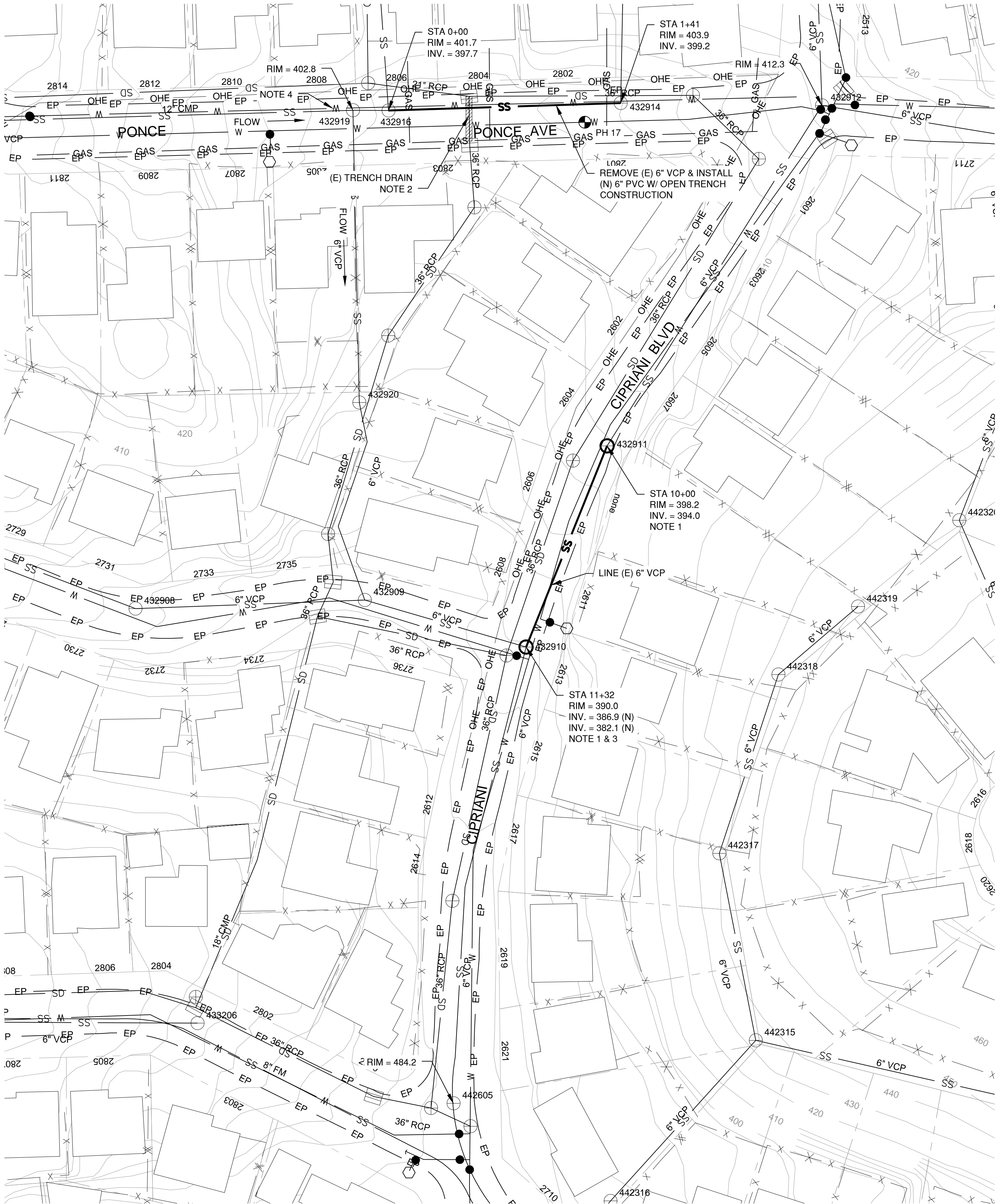
PONCE AVE PROFILE

HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'



MH 432910

SCALE: 1" = 2'



CIPRIANI BLVD & PONCE AVE

SCALE: 1" = 40'

REVISION OF UNDERGROUND UTILITY LOCATION & POTHOLE INFORMATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



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**2015 SEWER
REHABILITATION PROJECT
CIPRIANI BLVD & PONCE AVE**

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

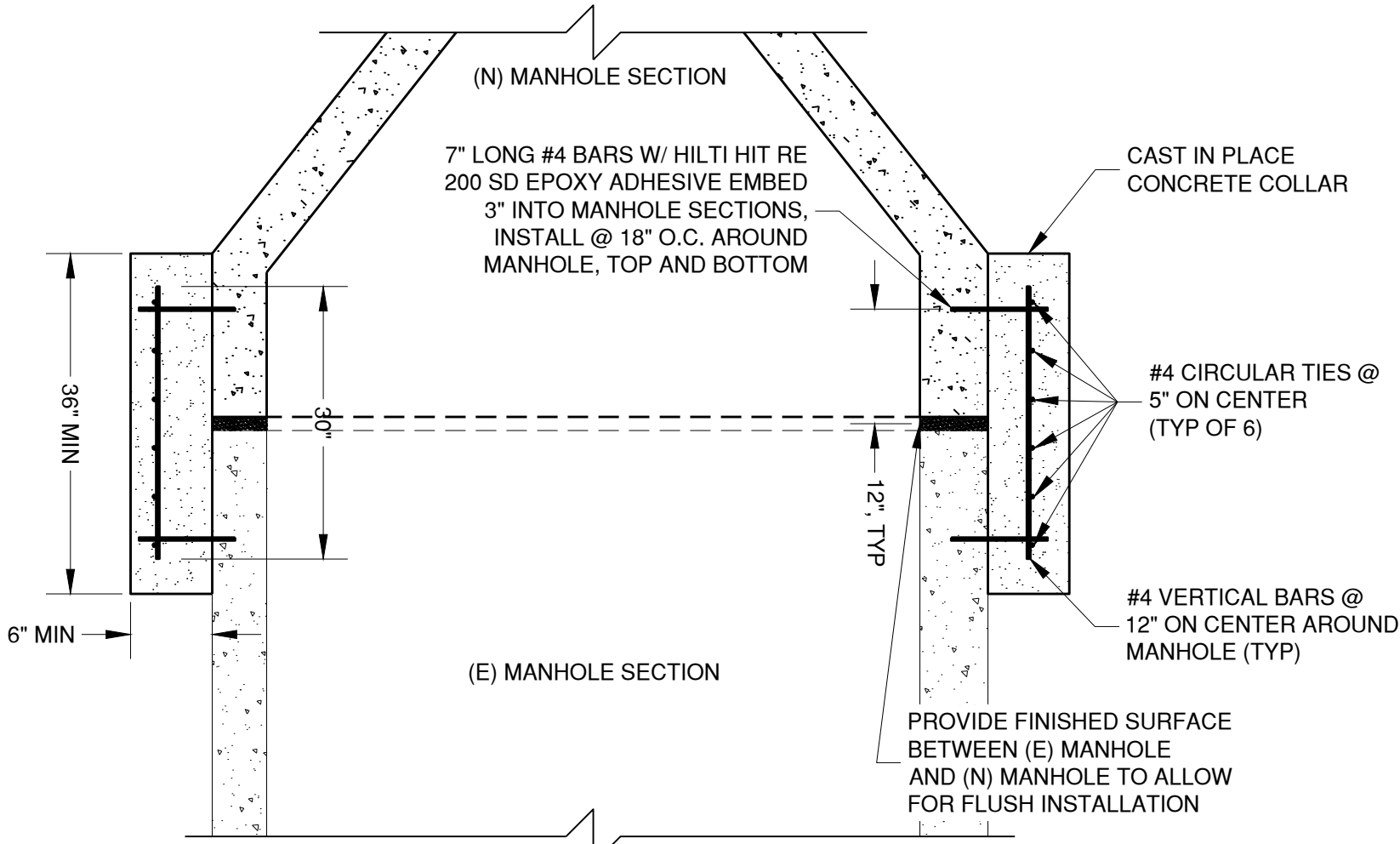
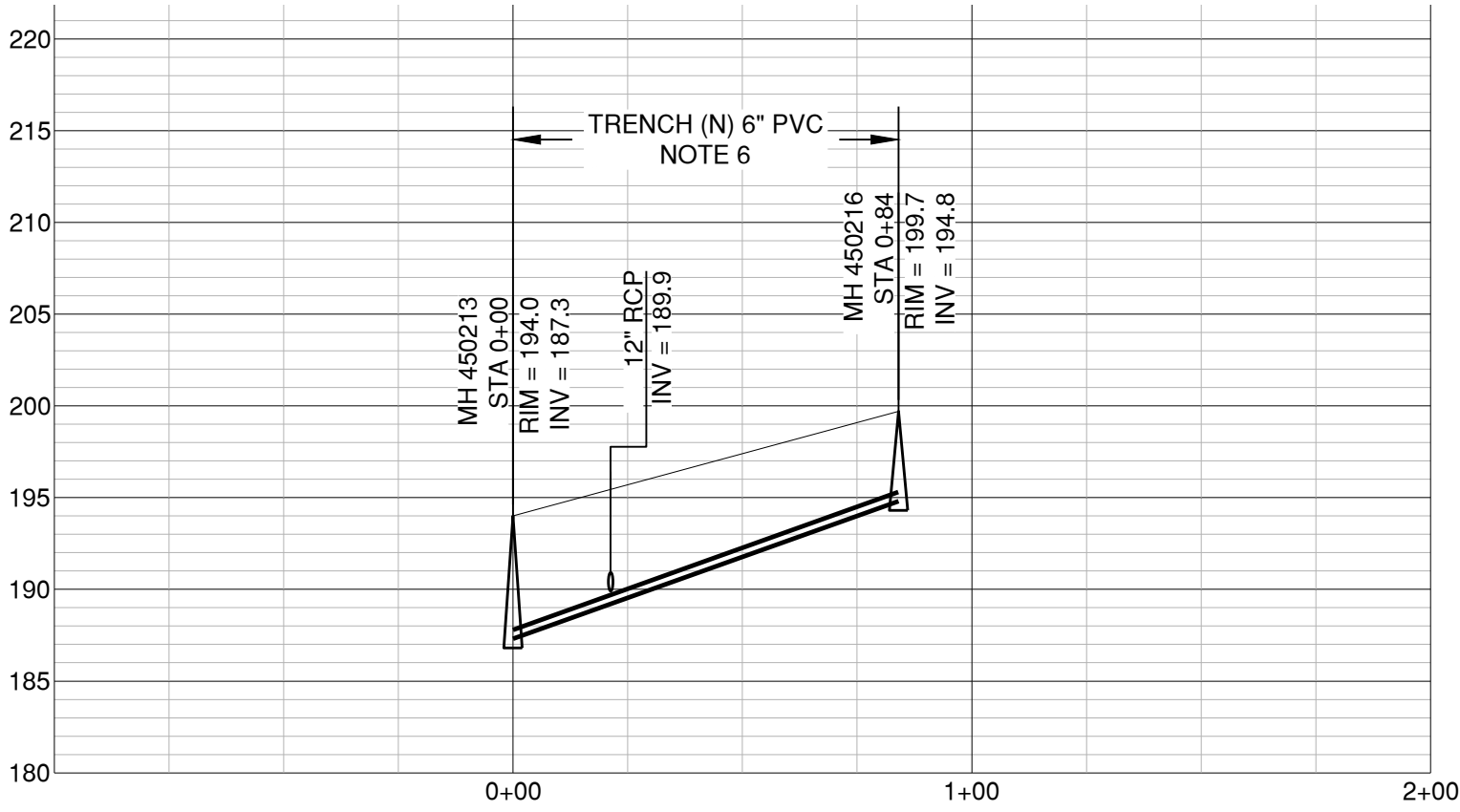
SHEET
8
OF
19

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
450504	450503	10+33	LEFT	REINSTATE	
450504	450503	10+58	LEFT	REINSTATE	
450504	450503	11+31	RIGHT	REINSTATE	
450504	450503	11+62	LEFT	REPAIR	ROOTS
450504	450503	12+33	RIGHT	REPAIR	ROOTS

SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
450504	450503	2.3	5.8
450216	450213	9.7	24.5

NOTES

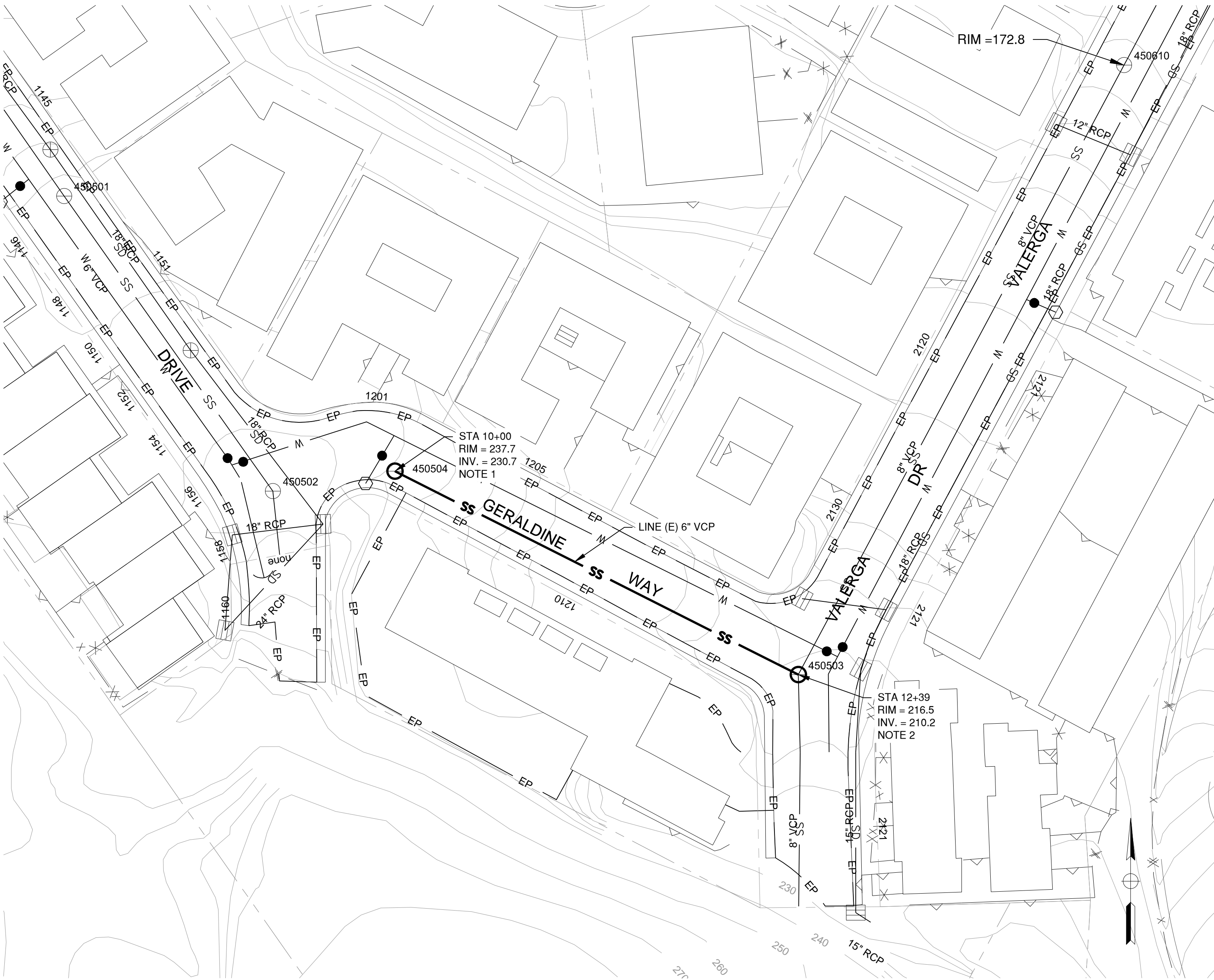
1. REPLACE (E) CLEANOUT WITH (N) MH, PER DETAIL 1 ON SHEET 18 PRIOR TO LINING (E) PIPE.
2. REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
3. REPLACE (E) MH CONE SECTION, RIM, AND COVER PER DETAIL 1 & 2 ON SHEET 18. POUR CONCRETE COLLAR BETWEEN (N) CONE AND (E) MH PER DETAIL 1 ON SHEET 9. CONTRACTOR SHALL FIELD VERIFY SIZE AND DIMENSIONS PRIOR TO ORDERING MATERIALS. CONTRACTOR'S OPTION TO REPLACE ENTIRE MH.
4. REPLACE MH FRAME AND COVER, PER DETAIL 1 & 3 ON SHEET 18.
5. REFORM MH INVERT W/ NON-SHRINK GROUT PER DETAIL 1 ON SHEET 18.
6. REFER TO WATER SEPARATION NOTES ON SHEET 2.



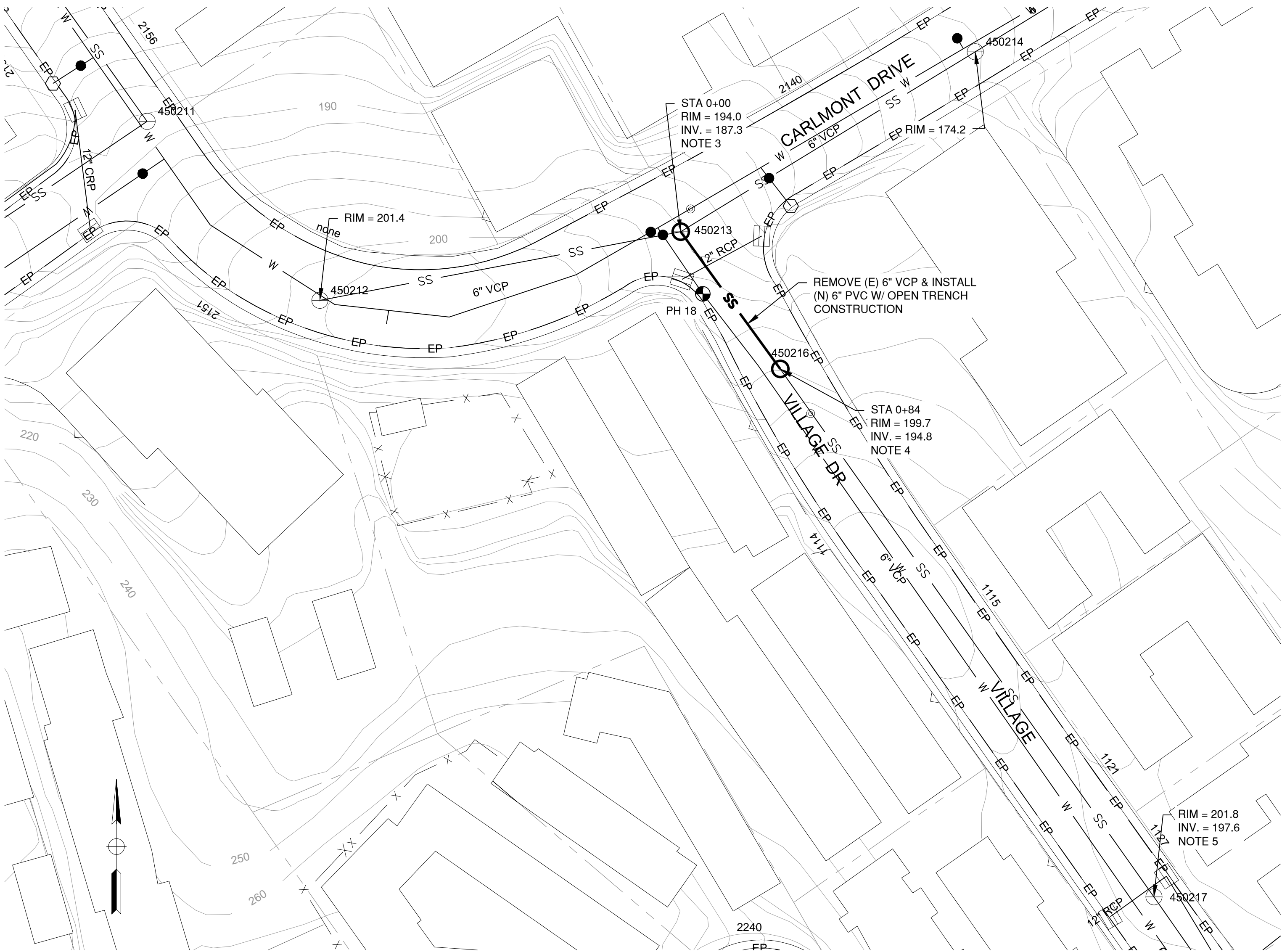
VILLAGE DR
HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'

NOTE: PROVIDE A MINIMUM 2" COVER FROM ALL REINFORCEMENT TO THE LIMITS OF EXISTING AND NEW CONCRETE

CONCRETE COLLAR 1
SCALE: NTS 9



GERALDINE WAY
SCALE: 1" = 40'



VILLAGE DR
SCALE: 1" = 40'

REVISION OF UNDERGROUND UTILITY LOCATION & POTHOLE INFORMATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



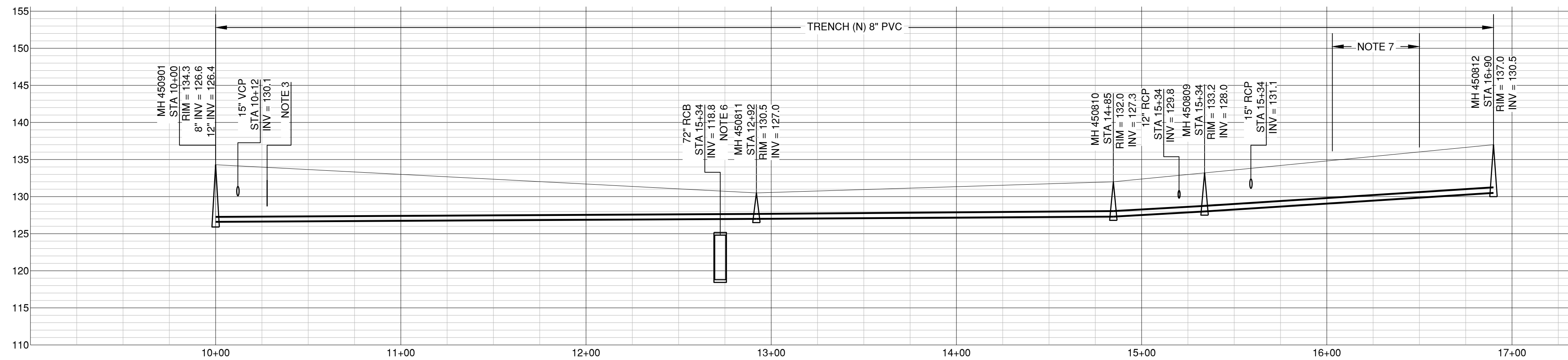
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2015 SEWER
REHABILITATION PROJECT
GERALDINE WAY & VILLAGE DR

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
9
OF
19



MAYWOOD DR & LADERA WAY PROFILE

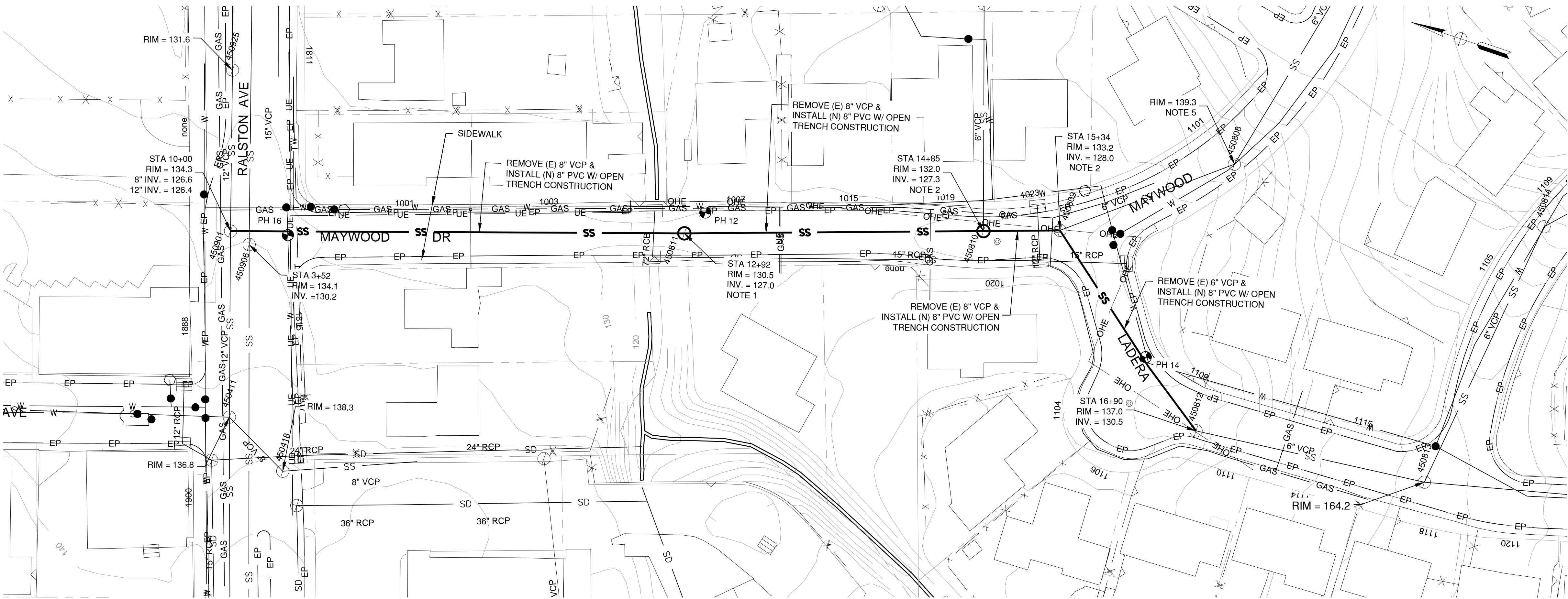
HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'

NOTES

- SPOT REPAIR 4"± DIAMETER VOID INSIDE MH W/ NON-SHRINK GROUT.
- REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- APPROXIMATE LOCATION OF WATER MAIN. DEPTH UNKNOWN.
- REFER TO SHEET 2 FOR RALSTON LANE CLOSURE REQUIREMENTS.
- SPOT REPAIR VOID IN TROUGH W/ NON-SHRINK GROUT AND REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- TOP OF CULVERT IS 5'-7"± BELOW TOP OF PAVEMENT.
- REFER TO WATER SEPARATION NOTES ON SHEET 2.

SEWER FLOWS			
UP MH	DO MH	PDWF Q (gpm)	PWWF Q (gpm)
450809	450810	24.9	151.7
450810	450811	30.0	182.8
450811	450901	30.0	182.8

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
450811	450901	10+62	LEFT		
450811	450901	11+18	LEFT		
450811	450901	11+71	LEFT		
450811	450901	12+50 TO 12+82			CAMERA UNDERWATER
450810	450811	13+12	RIGHT		
450810	450811	13+14	LEFT		ROOTS
450810	450811	13+99	LEFT		
450810	450811	14+60	LEFT		
450812	450809	16+03	LEFT		
450812	450809	16+07	RIGHT		
450812	450809	16+28	RIGHT		
450812	450809	16+51	LEFT		ROOTS
450812	450809	16+61	RIGHT		



MAYWOOD DR & LADERA WAY

SCALE: 1" = 40'

REVISION OF UNDERGROUND UTILITY LOCATION & POTHOLE INFORMATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



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DEPT. OF PUBLIC WORKS CCN 2015-534
**2015 SEWER
REHABILITATION PROJECT
MAYWOOD DR & LADERA WAY**

DATE: 5/29/15
SCALE: AS SHOWN
DESIGN: CLP
DRAWN: CLP
CHECKED: BLS

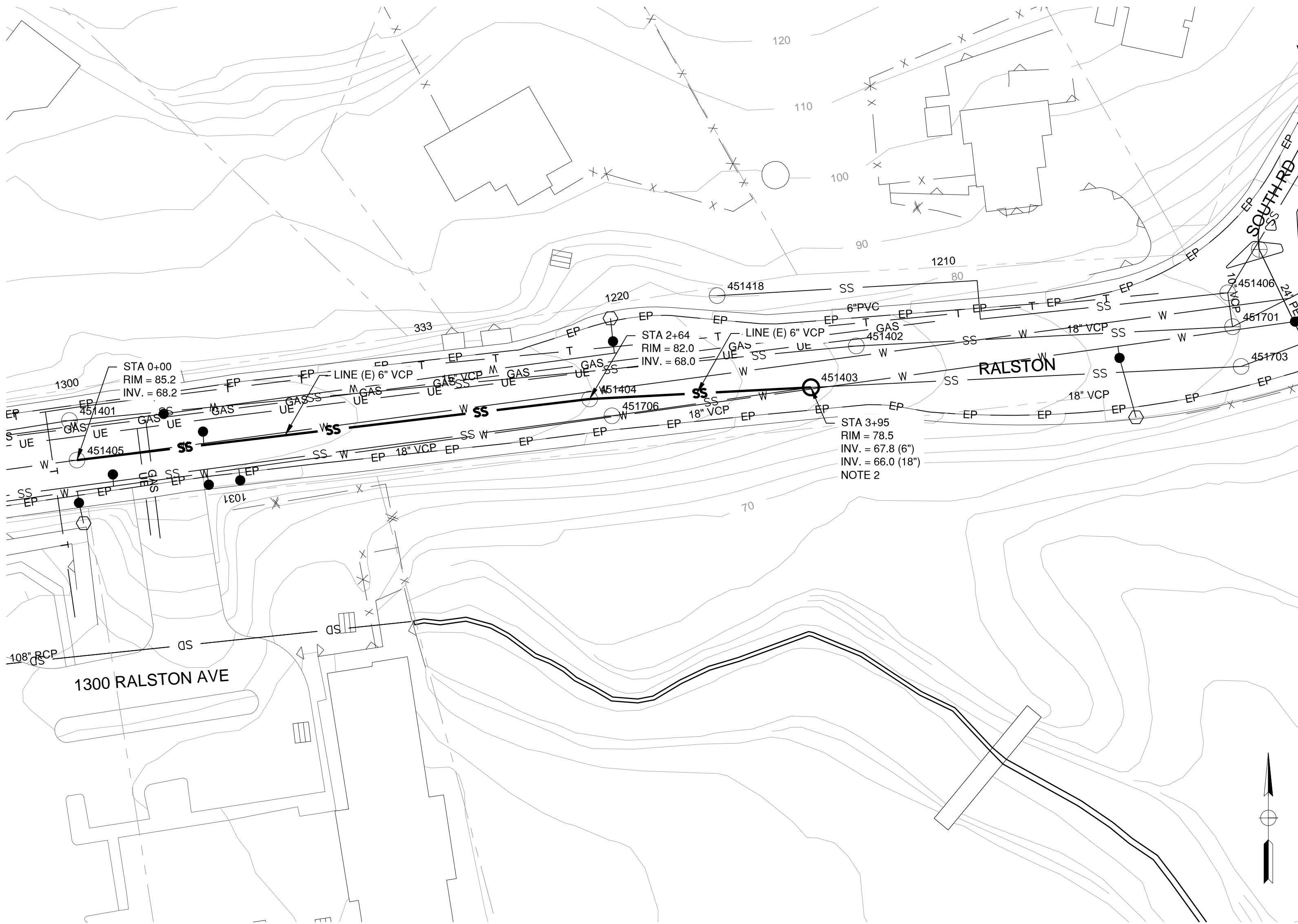
**SHEET
10
OF
19**

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
451405	451404	1+43	X	REINSTATE	
451405	451404	1+48	RIGHT	REINSTATE	VOID NEAR LATERAL

SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
451404	451403	0.3	1.2

NOTES

1. SEE NOTES ON SHEET 2 FOR RALSTON AVE LANE CLOSURE REQUIREMENTS.
2. REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.



1300 RALSTON AVE
SCALE: 1" = 40'

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



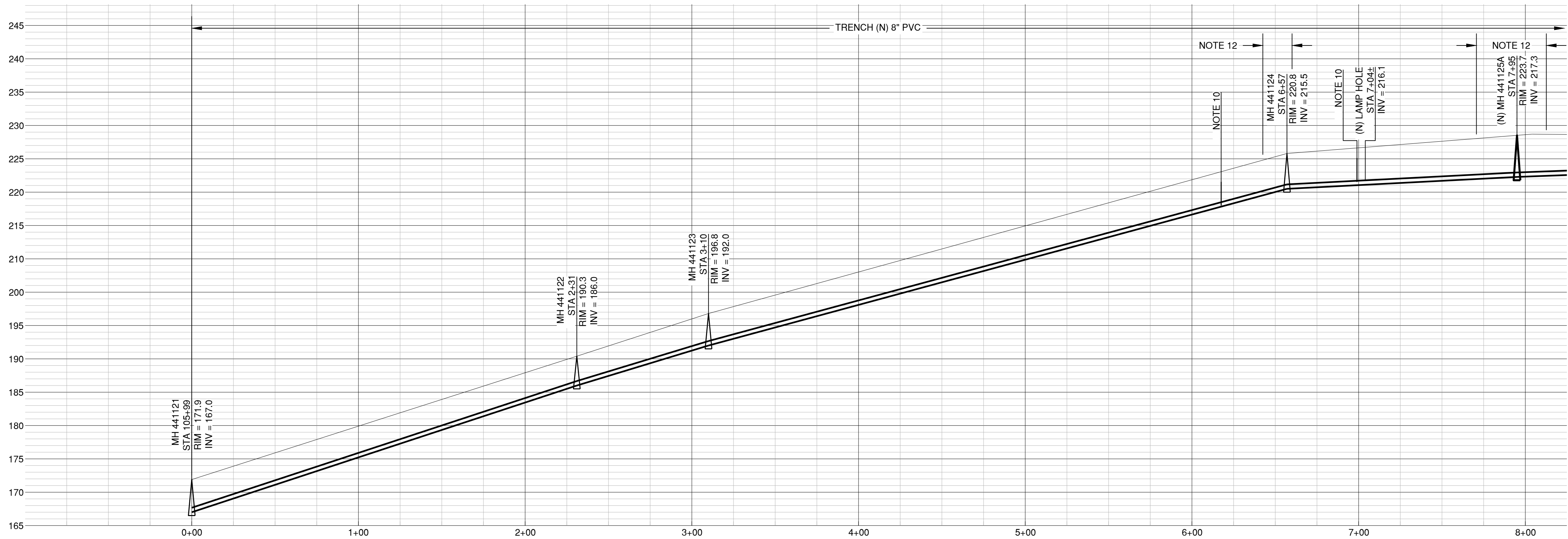
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DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
RALSTON AVE

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
11
OF
19



NORTH RD PROFILE

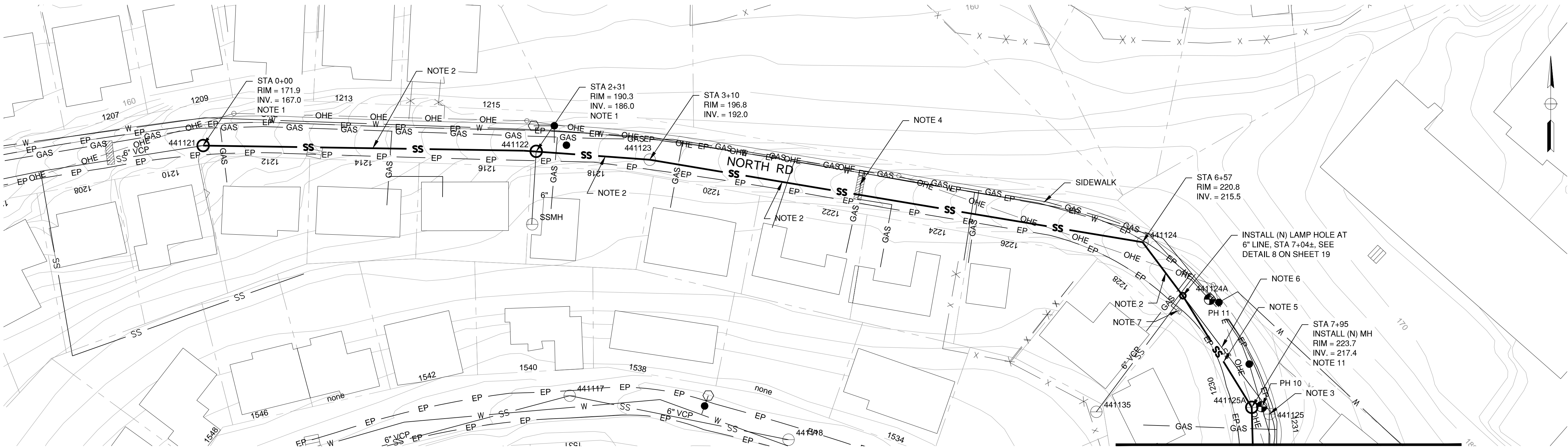
HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'

SEWER FLOWS			
UP MH	DO MH	PDWF	PWWF
441122	441121	31.2	93.1
441123	441122	27.3	81.6
441124	441123	27.3	81.6

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
441122	441121	0+44	RIGHT		
441122	441121	0+76	RIGHT		CAPPED
441122	441121	1+13	RIGHT		
441122	441121	1+51	RIGHT		
441124	441123	3+22	RIGHT		
441124	441123	3+88	RIGHT		
441124	441123	4+67	RIGHT		ROOTS
441124	441123	5+38	RIGHT		ROOTS
441124	441123	5+48	RIGHT		
441124	441123	5+48	RIGHT		ROOTS
441125	441124	7+04	RIGHT		

NOTES

- REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- REMOVE (E) 6" VCP & INSTALL (N) 8" PVC W/ OPEN TRENCH CONSTRUCTION.
- ABANDON (E) MH, SEE DETAIL 7 ON SHEET 19. MH FRAME IS OFFSET FROM SS MAIN.
- (E) REMOVABLE SPEED BUMP. REMOVE AND REPLACE AS NECESSARY FOR CONSTRUCTION OF THE NEW SEWER.
- RE-ALIGN SEWER MAIN TO AVOID UTILITY CONFLICTS. CONTRACTOR SHALL POTHOLE UTILITY LOCATIONS AND HAVE THE CITY VERIFY NEW ALIGNMENT PRIOR TO CONSTRUCTION.
- ABANDON (E) 6" VCP PER SPECIFICATION SECTION 02532.
- (E) WATER METERS.
- CHIP & REFORM MH INVERTS PER DETAIL 1 ON SHEET 18 AT ALL MH W/ UPSIZED SS PIPE, GROUT AROUND (N) PIPE MH CONNECTION.
- IN ACCORDANCE W/ THE SPECIFICATIONS & AN APPROVED TRAFFIC CONTROL PLAN, CONTRACTOR CAN TEMPORARILY CLOSE PORTIONS OF THE STREET DURING WORKING HOURS.
- APPROXIMATE LOCATION OF WATER MAIN, DEPTH UNKNOWN. CONTRACTOR SHALL POTHOLE LOCATION OF UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
- INSTALL (N) MH OFFSET APPROXIMATELY 13 FT FROM CENTER OF (E) MH COVER.
- REFER TO WATER SEPARATION NOTES ON SHEET 2.



NORTH RD

SCALE: 1" = 40'

REVISION OF UNDERGROUND UTILITY
LOCATION & POTHOLE INFORMATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



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DEPT. OF PUBLIC WORKS CCN 2015-534
**2015 SEWER
REHABILITATION PROJECT
NORTH RD**

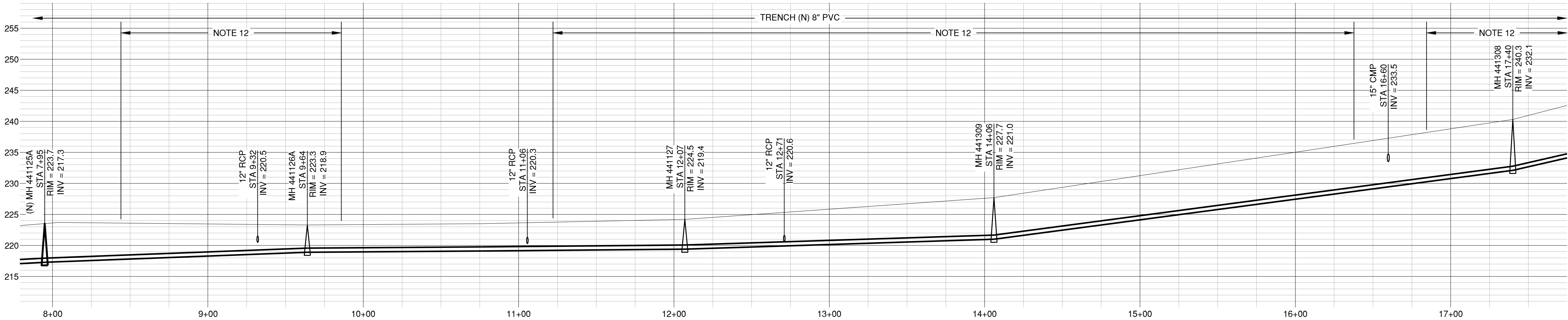
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SCALE: AS SHOWN
DESIGN: CLP
DRAWN: CLP
CHECKED: BLS

**SHEET
12
OF
19**

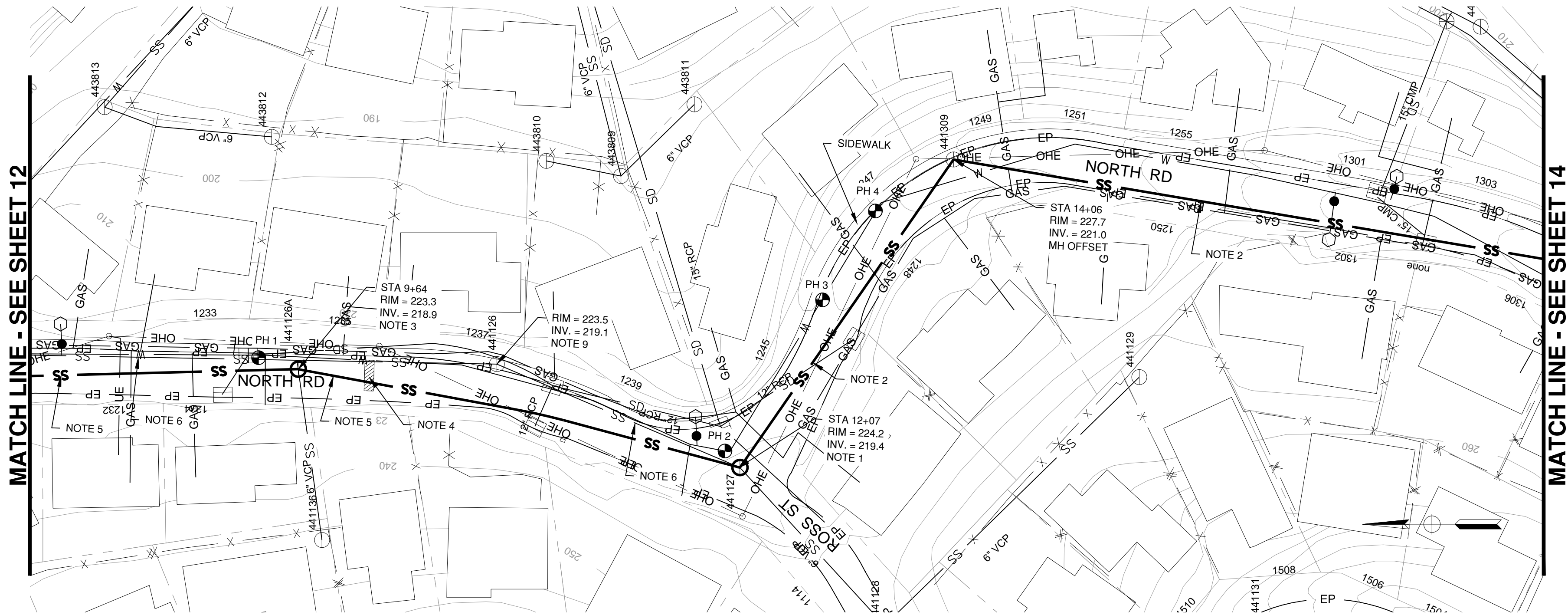
NOTE 10 & 11

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
441126A	441125A	8+83	RIGHT		ROOTS
441126A	441125A	8+97	RIGHT		
441127	441126A	10+25	RIGHT		
441127	441126A	10+92	RIGHT		
441127	441126A	11+87	RIGHT		
441309	441127	12+31	RIGHT		
441309	441127	13+31	RIGHT		
441309	441127	13+38	RIGHT		
441308	441309	14+71	RIGHT		
441308	441309	16+29	RIGHT		

SEWER FLOWS			
UP MH	DO MH	PDWF	PWWF
		Q (gpm)	Q (gpm)
441127	441126	23.8	71.2
441309	441127	16.5	49.2



NORTH RD PROFILE
HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'



NORTH RD
SCALE: 1" = 40'

NOTES

- REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- REMOVE (E) 6" VCP & INSTALL (N) 8" PVC W/ OPEN TRENCH CONSTRUCTION.
- MH IS OFFSET FROM (E) SS MAIN RUNNING ALONG NORTH RD DUE TO PROXIMITY TO GAS & WATER LINES. RE-ALIGN SS TO GO THROUGH (E) MH PER NOTE 5. CORE DRILL (E) MH, REFORM INVERTS FOR (N) SS, & GROUT AROUND (N) PIPE MH CONNECTION.
- (E) REMOVABLE SPEED BUMP. REMOVE & REPLACE AS NECESSARY FOR CONSTRUCTION OF THE NEW SEWER.
- RE-ALIGN SEWER MAIN TO AVOID UTILITY CONFLICTS. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS BEFORE RE-ALIGNING SEWER MAIN.
- ABANDON (E) 6" VCP PER SPECIFICATION SECTION 02532.
- CHIP & REFORM MH INVERTS AT ALL MH W/ UPSIZED SS PIPE & GROUT AROUND (N) PIPE MH CONNECTION.
- IN ACCORDANCE W/ THE SPECIFICATIONS & AN APPROVED TRAFFIC CONTROL PLAN, CONTRACTOR CAN TEMPORARILY CLOSE PORTIONS OF THE STREET DURING THE WORK HOURS.
- MH LOCATED IN (E) SIDEWALK/DRIVEWAY ENTRANCE. ABANDON MH PER DETAIL 8 ON SHEET 19.
- ALONG NEW SEWER ALIGNMENT, RE-CONNECT (E) LATERALS TO (N) SEWER MAIN PER DETAIL 6 ON SHEET 19.
- LATERAL STATIONING IS APPROXIMATE & BASED ON THE (N) SEWER ALIGNMENT.
- REFER TO WATER SEPARATION NOTES ON SHEET 2.

REVISION OF UNDERGROUND UTILITY LOCATION & POTHOLE INFORMATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



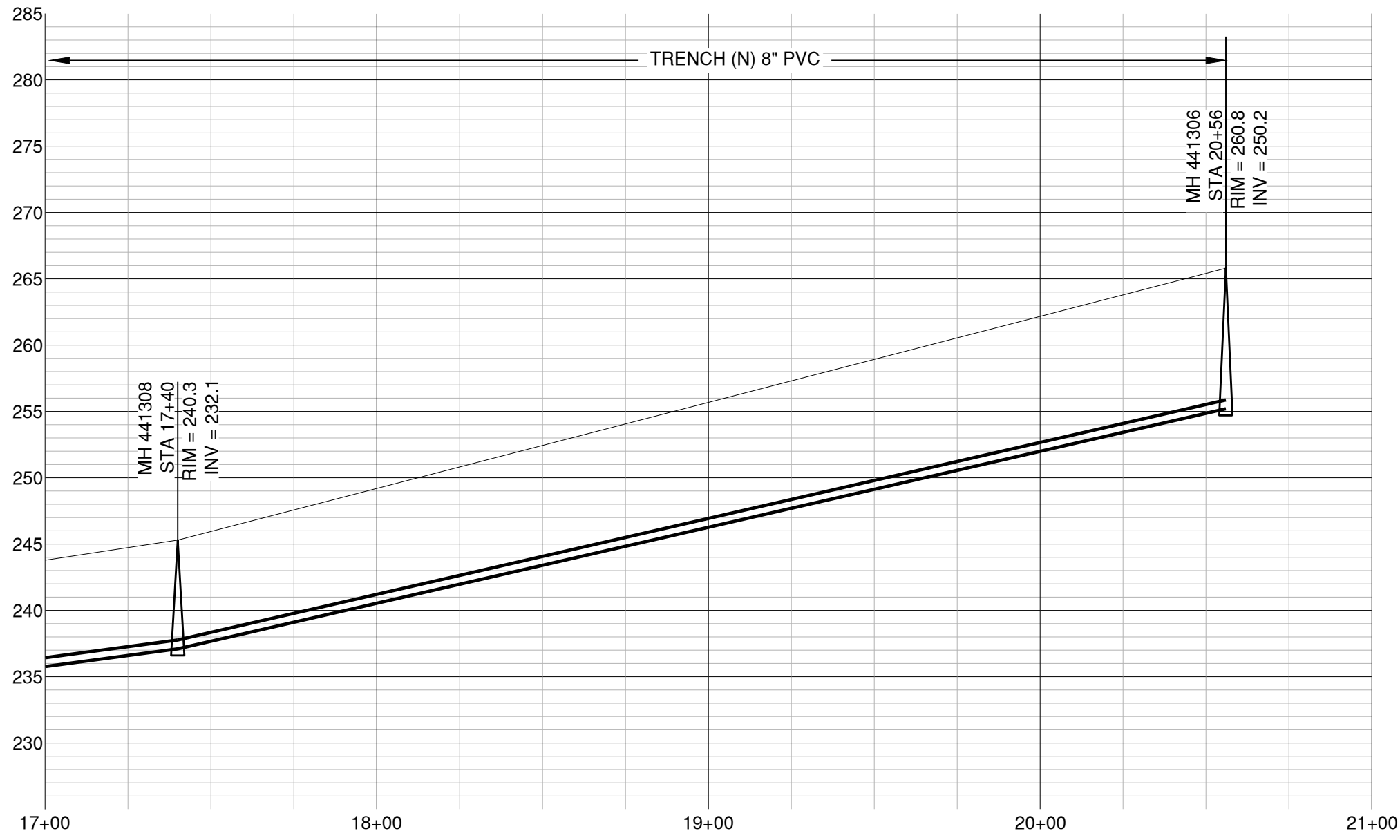
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(408) 246-4848



DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
NORTH RD

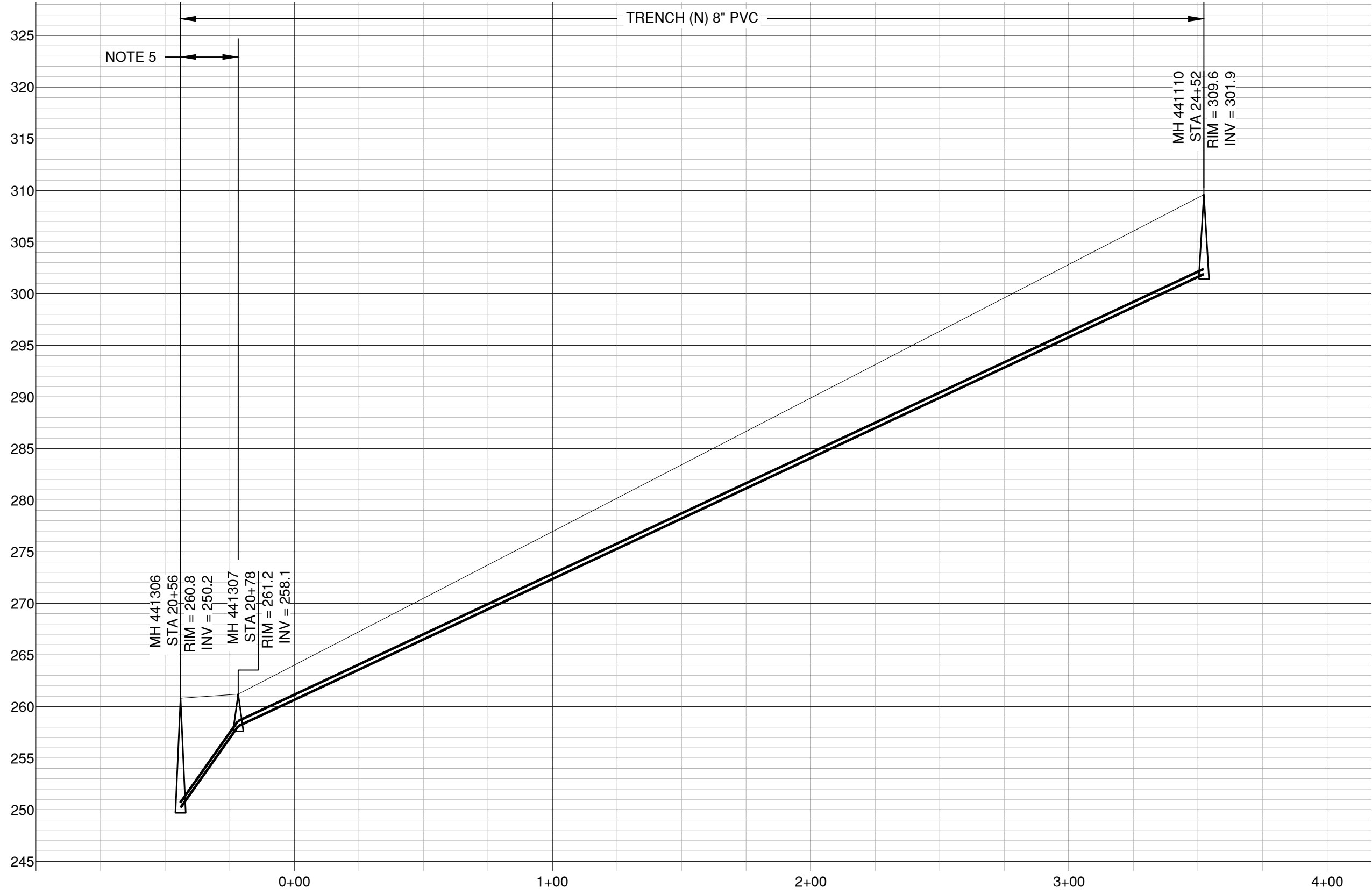
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DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
13
OF
19



NORTH RD PROFILE

HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'



WILLIAMS AVE PROFILE

HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'

NOTES

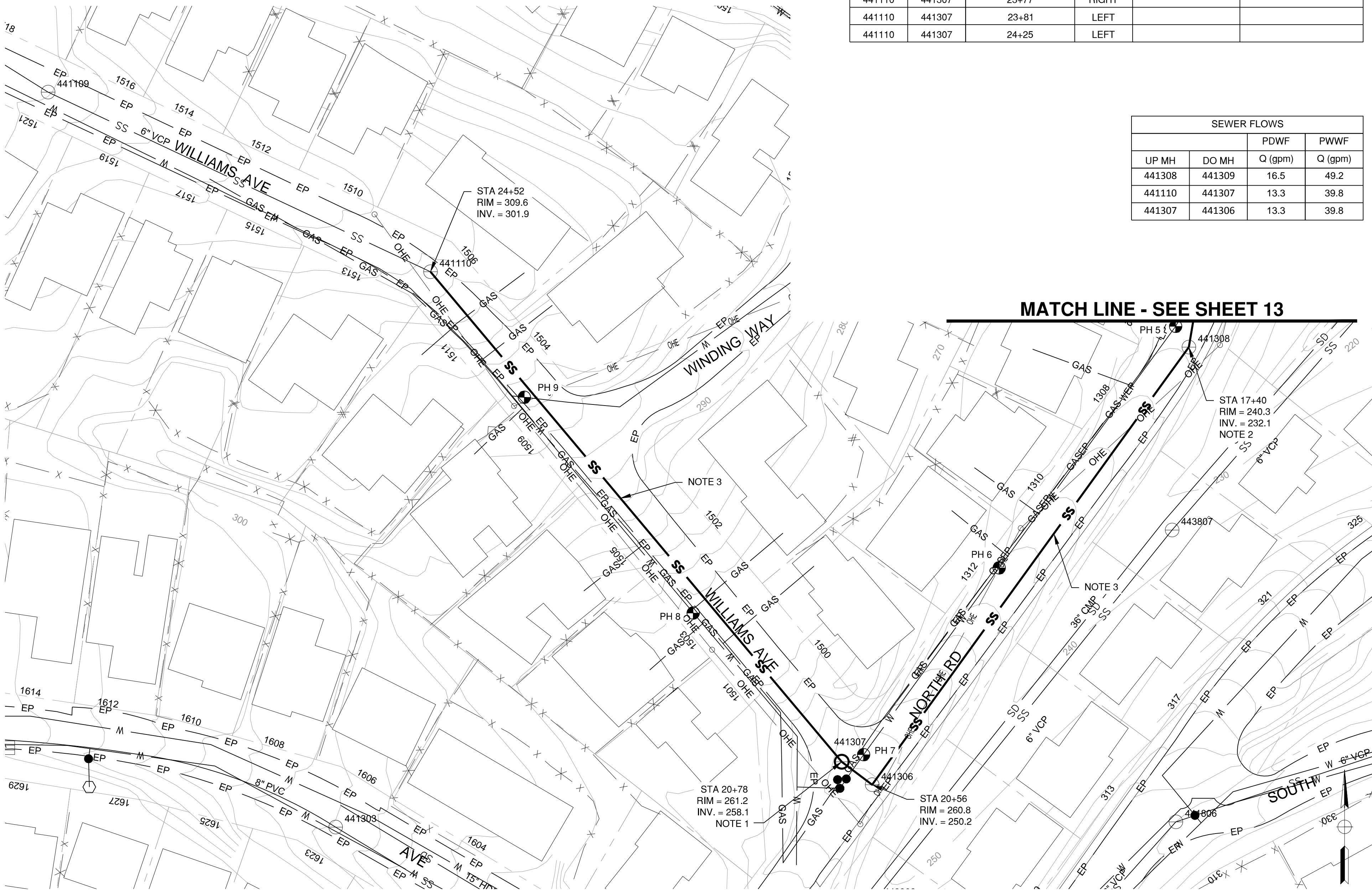
- 1. REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- 2. APPLY NON-SHRINK GROUT AT JOINTS ALONG CONE OF MH.
- 3. REMOVE (E) 6" VCP & INSTALL (N) 8" PVC W/ OPEN TRENCH CONSTRUCTION.
- 4. LATERAL MIGHT BE CAPPED. CONTRACTOR TO ABANDON LATERAL LOCATION IF PRE-INSPECTION VIDEO SHOWS LATERAL IS CAPPED.
- 5. REFER TO WATER SEPARATION NOTES ON SHEET 2.

NOTE 4

NOTE 4

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
441306	441308	17+49	RIGHT		
441306	441308	17+55	LEFT		
441306	441308	17+61	RIGHT		
441306	441308	18+14	LEFT		
441306	441308	18+20	RIGHT		ROOTS
441306	441308	18+15	LEFT		ABANDONED?
441306	441308	18+91	RIGHT		
441306	441308	19+57	LEFT		ABANDONED?
441306	441308	20+38	LEFT		
441110	441307	21+04	LEFT		
441110	441307	21+05	RIGHT		
441110	441307	21+80	LEFT		CAPPED
441110	441307	21+86	LEFT		
441110	441307	21+90	RIGHT		
441110	441307	22+44	LEFT		
441110	441307	22+73	LEFT		CAPPED
441110	441307	22+90	RIGHT		CAPPED
441110	441307	22+98	LEFT		
441110	441307	23+50	LEFT		CAPPED
441110	441307	23+53	RIGHT		CAPPED
441110	441307	23+77	RIGHT		
441110	441307	23+81	LEFT		
441110	441307	24+25	LEFT		

SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
441308	441309	16.5	49.2
441110	441307	13.3	39.8
441307	441306	13.3	39.8



NORTH RD & WILLIAMS AVE

SCALE: 1" = 40'

REVISION OF UNDERGROUND UTILITY LOCATION & POTHOLE INFORMATION

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



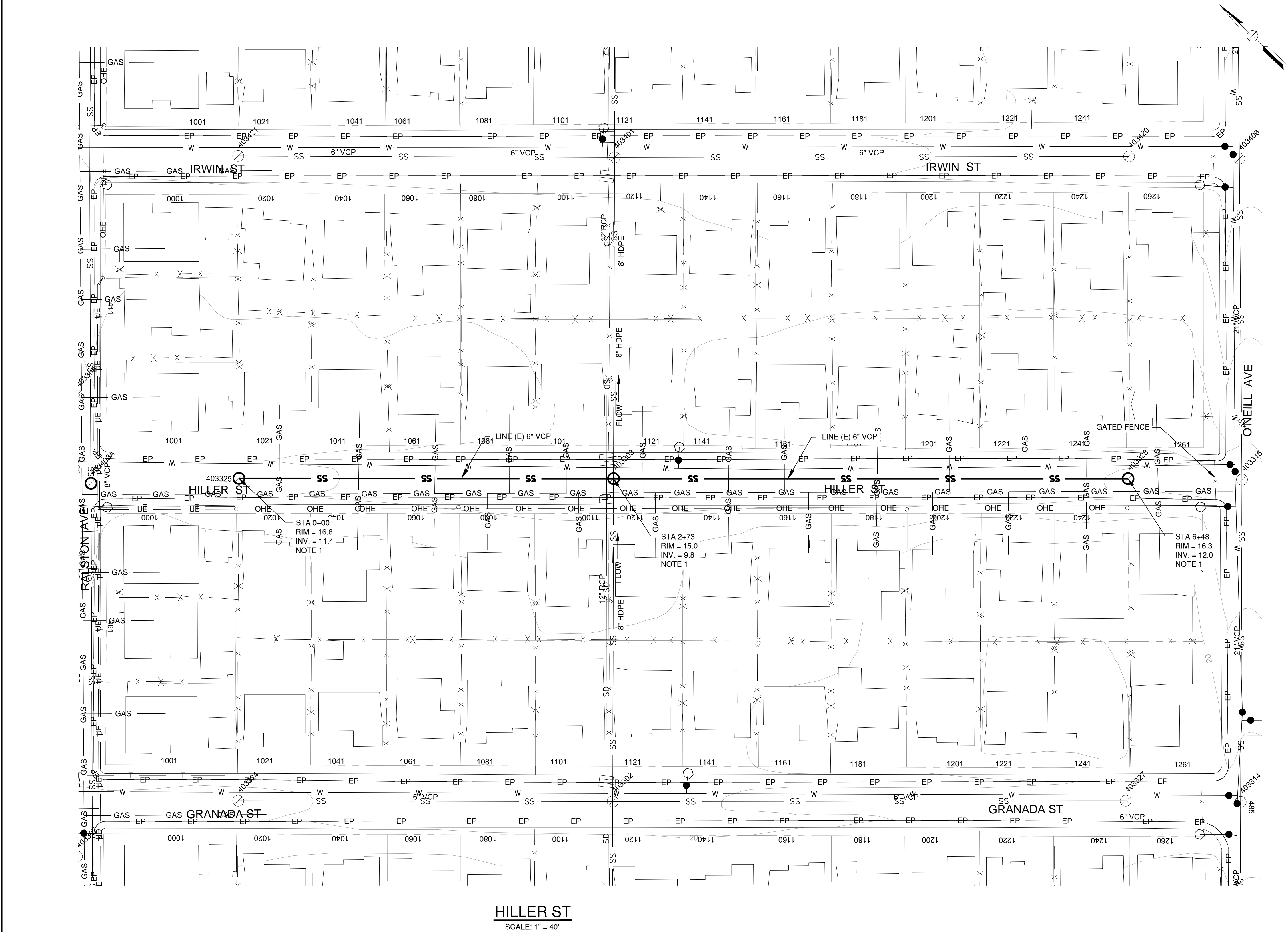
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DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
NORTH RD & WILLIAMS AVE

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
14
OF
19



NOTES

1. REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.

SEWER FLOWS			
		PDWF	PWWF
UP MH	DO MH	Q (gpm)	Q (gpm)
403325	403303	0.7	4.4
403328	403303	1.1	7.1

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
403325	403303	0+60	RIGHT	REINSTATE	
403325	403303	0+63	LEFT	REINSTATE	
403325	403303	1+15	RIGHT	REINSTATE	
403325	403303	1+18	LEFT	REINSTATE	
403325	403303	1+66	RIGHT	REINSTATE	
403325	403303	1+69	LEFT	REINSTATE	
403328	403303	2+73 TO 3+55		UNKNOWN	CAMERA UNDERWATER
403328	403303	3+68	LEFT	REINSTATE	
403328	403303	3+72	RIGHT	REINSTATE	
403328	403303	4+22	LEFT	REINSTATE	
403328	403303	4+24	RIGHT	REINSTATE	
403328	403303	4+68	RIGHT	REINSTATE	
403328	403303	4+74	LEFT	REINSTATE	
403328	403303	5+28	RIGHT	REINSTATE	
403328	403303	5+30	LEFT	REINSTATE	
403328	403303	5+85	RIGHT	REINSTATE	
403328	403303	5+88	LEFT	REINSTATE	

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			



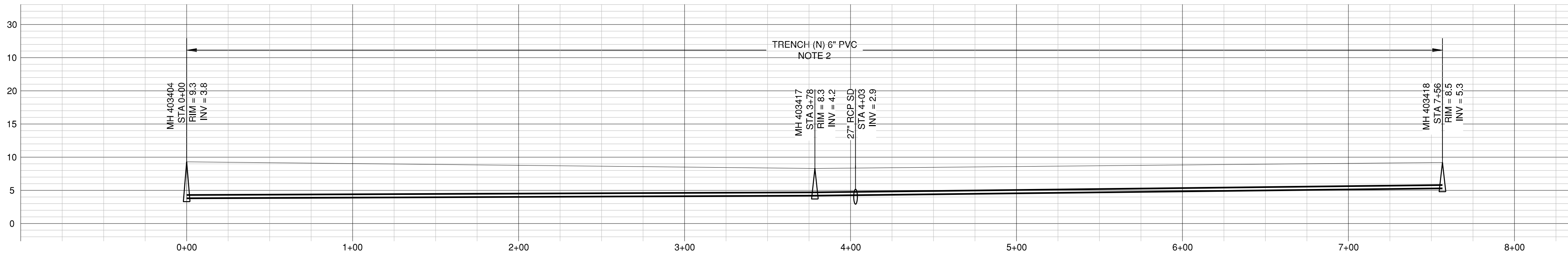
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DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
HILLER ST

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
15
OF
19



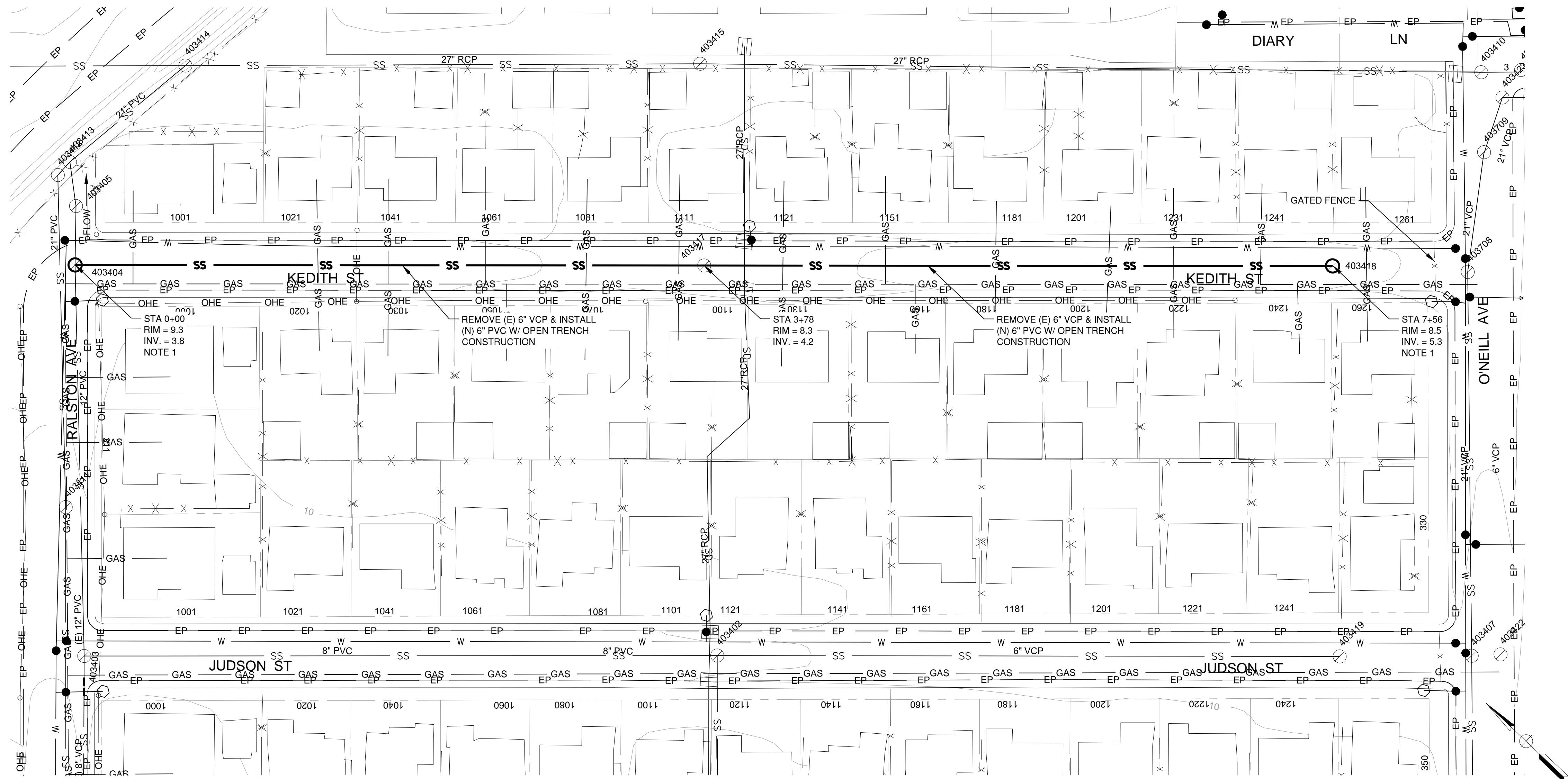
PROFILE
HOR. SCALE: 1" = 40'
VER. SCALE: 1" = 10'

LATERAL LOCATIONS					
UP MH	DO MH	APPROXIMATE STA	SIDE	LATERAL	NOTES
403417	403404	0+00 TO 0+74			CAMERA UNDERWATER
403417	403404	1+04	LEFT		
403417	403404	1+06	RIGHT		
403417	403404	1+62	RIGHT		CAPPED
403417	403404	2+03	RIGHT		
403417	403404	2+06	LEFT		
403417	403404	2+14	LEFT		
403417	403404	2+74	RIGHT		
403417	403404	2+85	LEFT		
403417	403404	3+26	RIGHT		
403418	403417	3+85	RIGHT		
403418	403417	4+42	RIGHT		
403418	403417	4+53	RIGHT		
403418	403417	5+09	RIGHT		
403418	403417	5+59	RIGHT		
403418	403417	5+60	RIGHT		
403418	403417	6+22	RIGHT		
403418	403417	6+25	RIGHT		
403418	403417	6+75	RIGHT		
403418	403417	6+77	RIGHT		
403418	403417	6+84	RIGHT		
403418	403417	7+41	RIGHT		

SEWER FLOWS			
UP MH	DO MH	PDWF	PWWF
		Q (gpm)	Q (gpm)
403417	403404	1.6	10.6

NOTES

- REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.
- (N) SEWER MAIN ON KEDITH STREET SHALL BE CONSTRUCTED PER DETAIL 5 ON SHEET 18.



KEDITH ST
SCALE: 1" = 40'



NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
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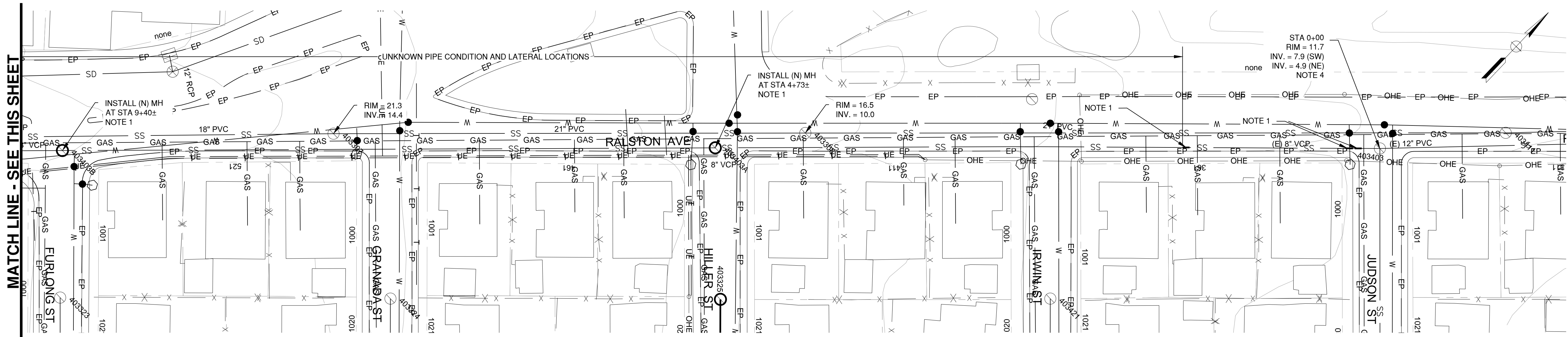
DEPT. OF PUBLIC WORKS CCN 2015-534
2015 SEWER
REHABILITATION PROJECT
KEDITH ST

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
16
OF
19

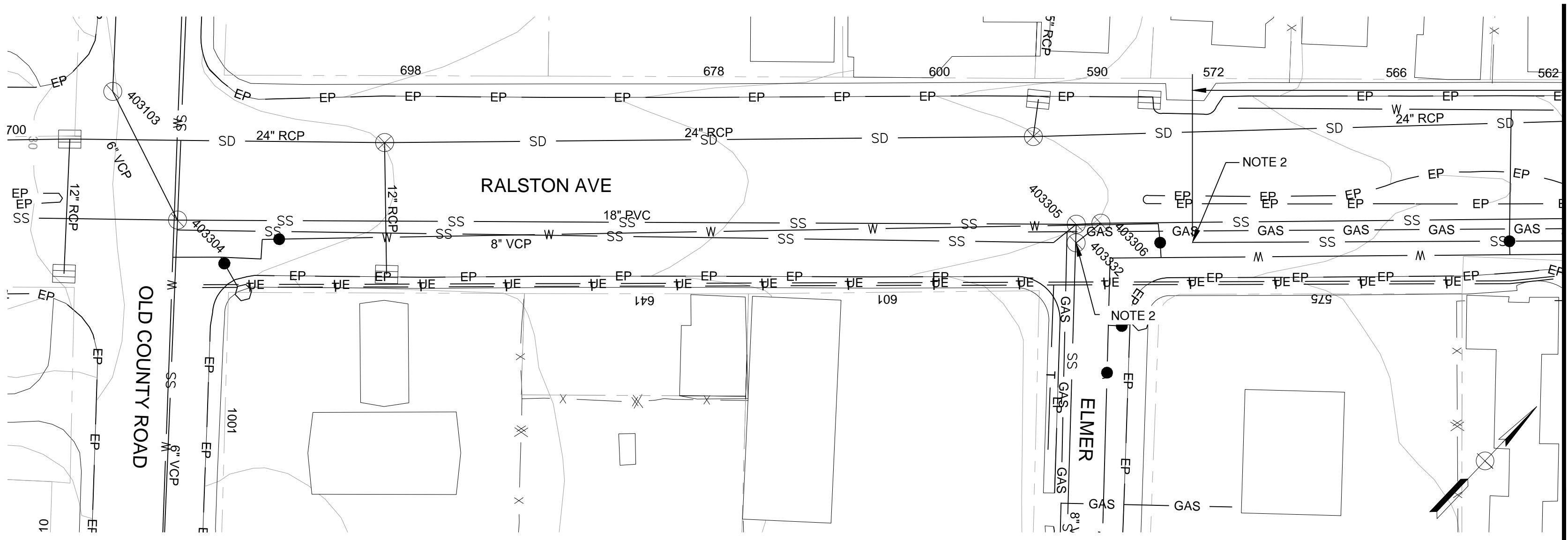
NOTES

1. CONTRACTOR SHALL REPAIR SECTION AT STA 1+36± PER DETAIL 8 ON SHEET 18, CCTV VIDEO THE ENTIRE ESTIMATED 1080 FT SEWER LENGTH BETWEEN MH 403403 AND MH 403332 AND SUBMIT IT TO THE CITY FOR REVIEW. AFTER CITY ENGINEER HAS REVIEWED THE VIDEO AND PROVIDED WRITTEN AUTHORIZATION TO PROCEED, MAKE SPOT REPAIRS AT STA 0+13± AND STA 0+18± PER DETAIL 6 ON SHEET 18 AND INSTALL MANHOLES AT STA 4+73 AND 9+40 PER DETAIL 1 ON SHEET 18.
2. 8 INCH RALSTON SEWER DOES NOT GO THROUGH MH 403332.
3. SEWER LATERAL LEFT AT STA 0+73±, ADDITIONAL LATERALS MAY EXIST BEYOND STA 1+36±.
4. REMOVE MH LADDER RUNGS AND REHABILITATE EXISTING MANHOLE PER TECHNICAL SPECIFICATIONS SECTION 09900.



361 RALSTON AVE

SCALE: 1" = 40'



361 RALSTON AVE

SCALE: 1" = 40'

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



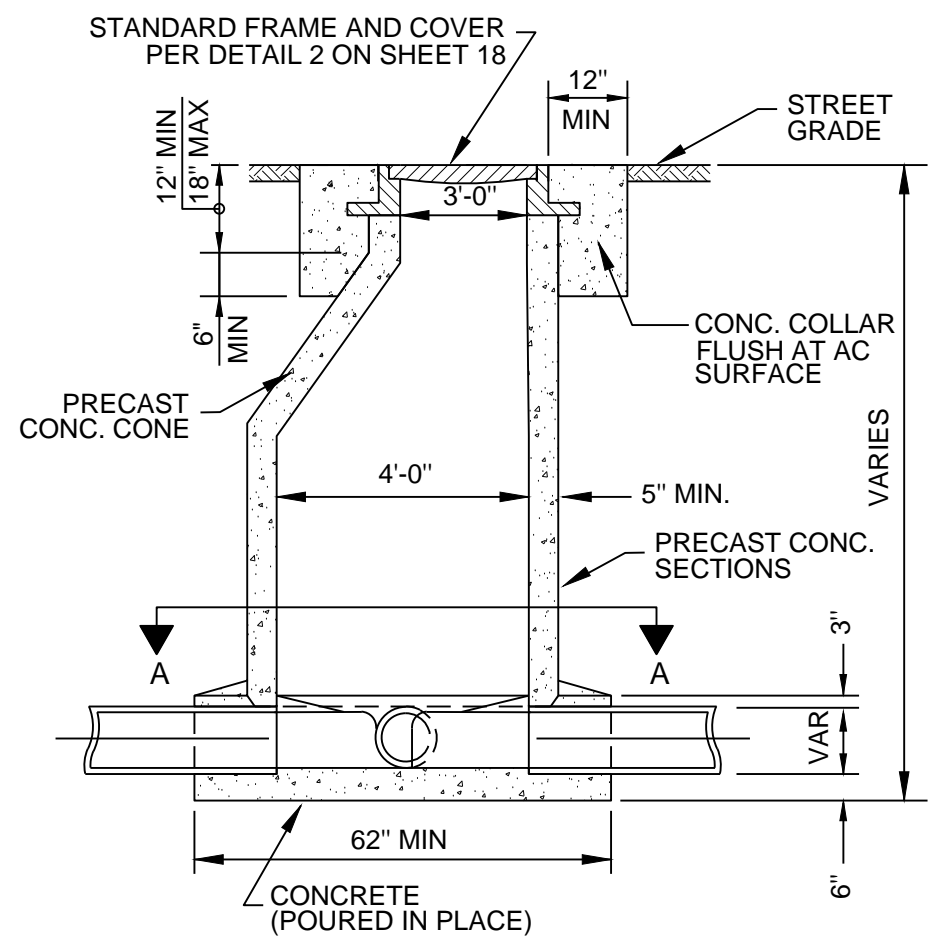
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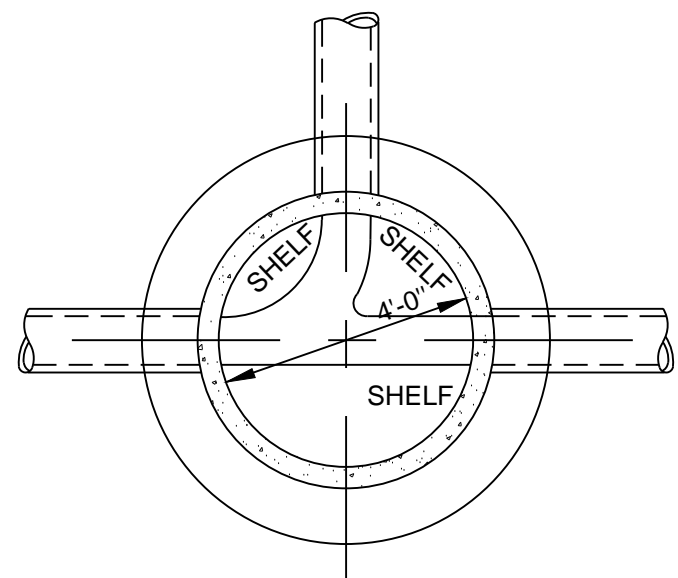
DEPT. OF PUBLIC WORKS CCN 2015-534
**2015 SEWER
REHABILITATION PROJECT
361 RALSTON AVE**

DATE:	5/29/15
SCALE:	AS SHOWN
DESIGN:	CLP
DRAWN:	CLP
CHECKED:	BLS

SHEET
17
OF
19



SECTIONAL ELEVATION



SECTION A-A

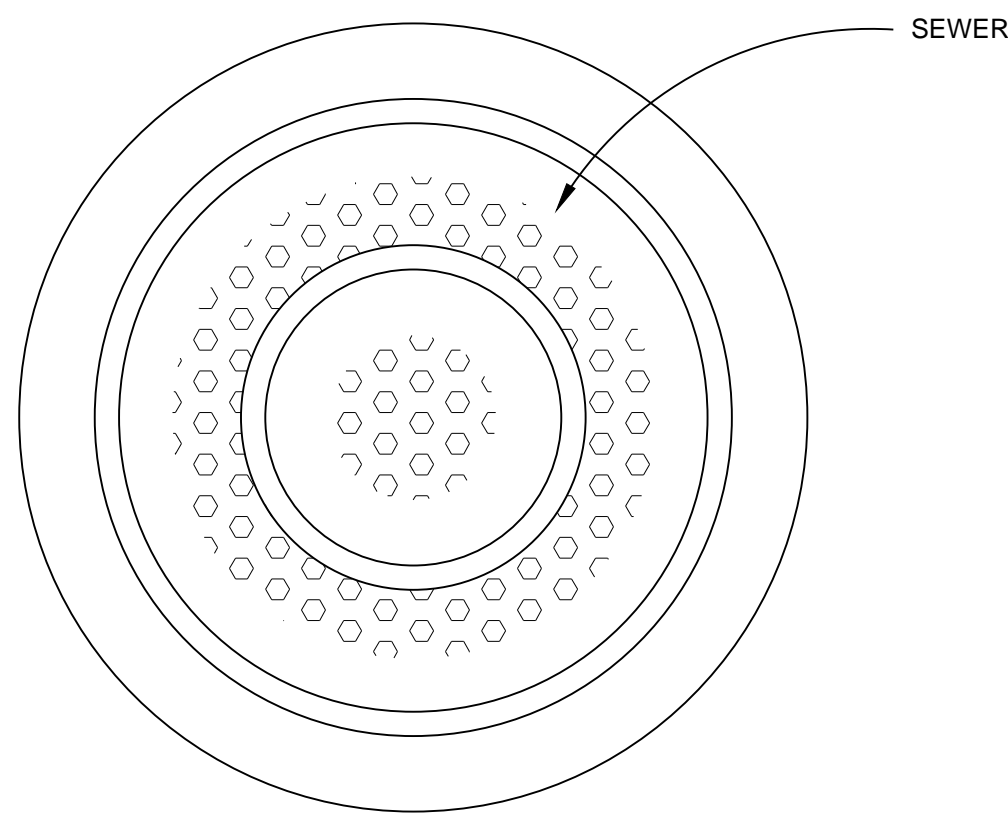
PRE-CAST MANHOLE

SCALE: NTS

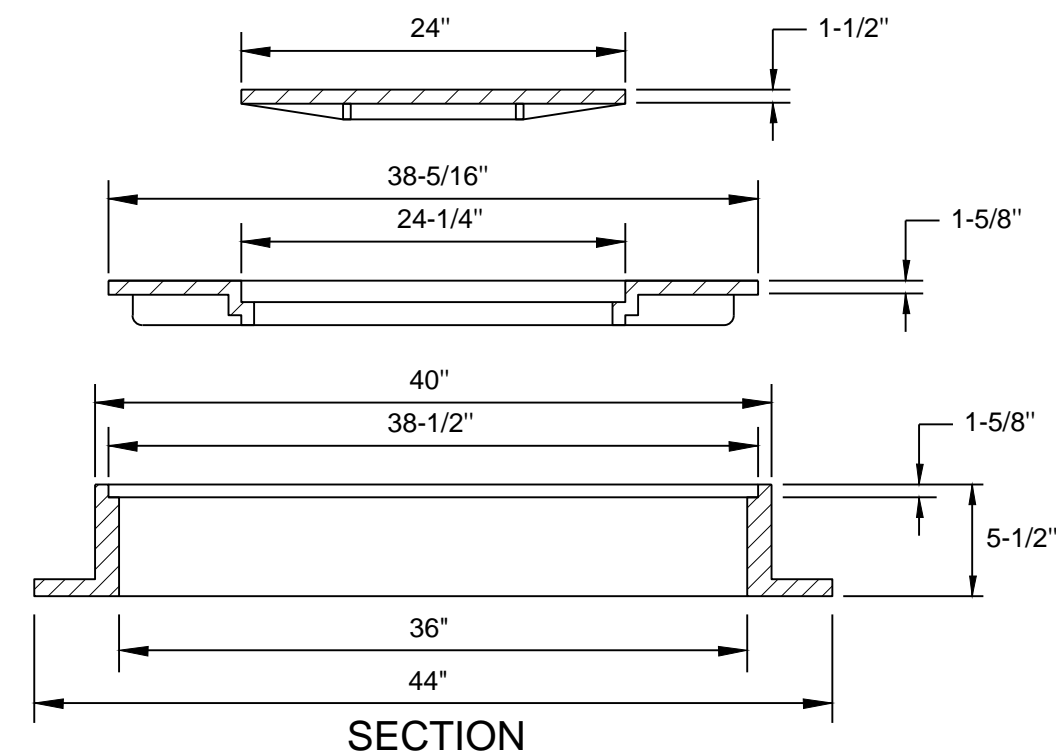
1
18

NOTES:

1. NEW MANHOLES SHALL BE ECCENTRIC WHEREVER POSSIBLE. EXISTING MANHOLES ARE CONCENTRIC UNLESS OTHERWISE NOTED ON THE PLANS.
2. TAPER "SHELF" 1/2" PER FOOT TOWARDS CHANNEL.
3. REFER TO SPECIFICATIONS FOR MANHOLE PIPE CONNECTION.



PLAN

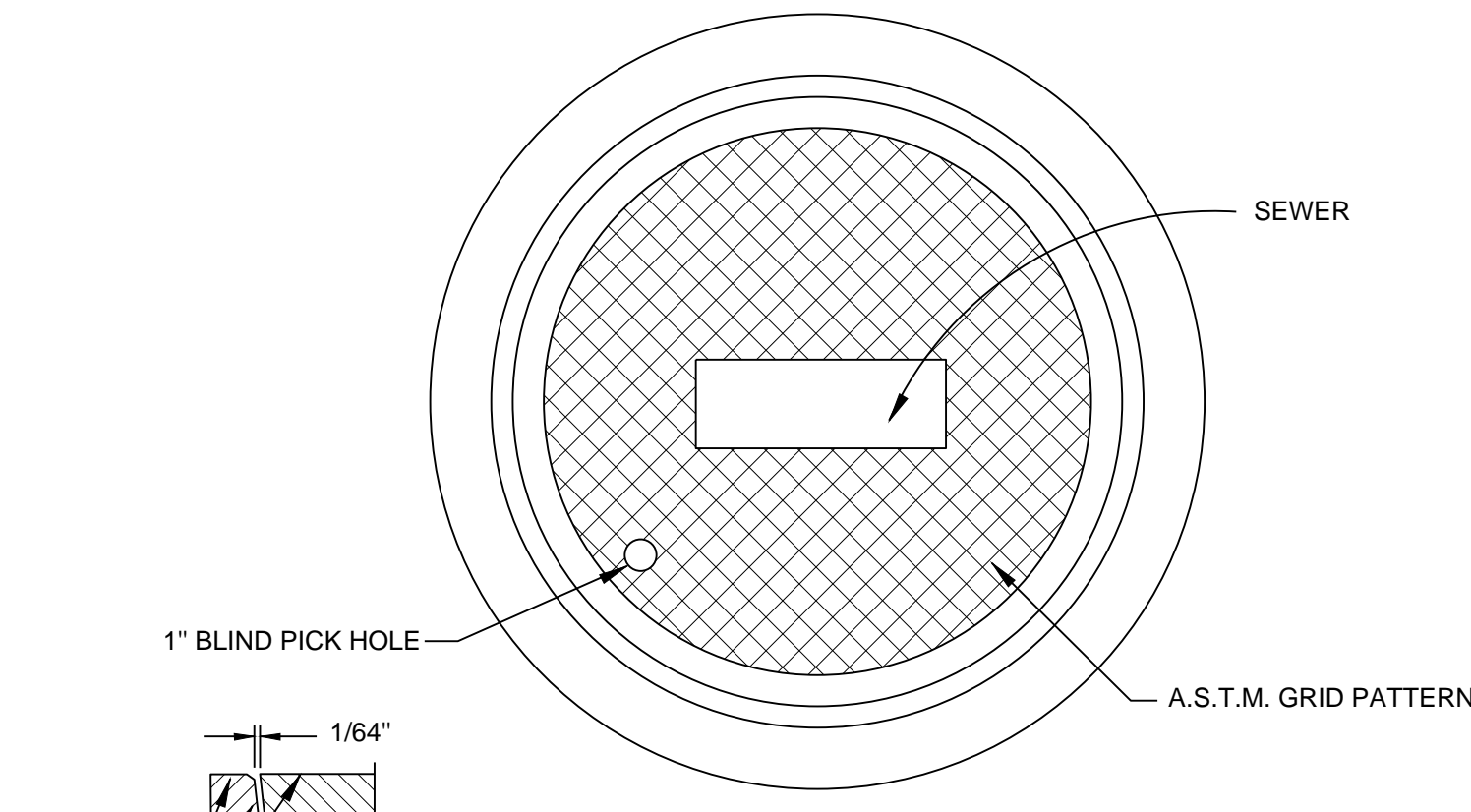


SECTION

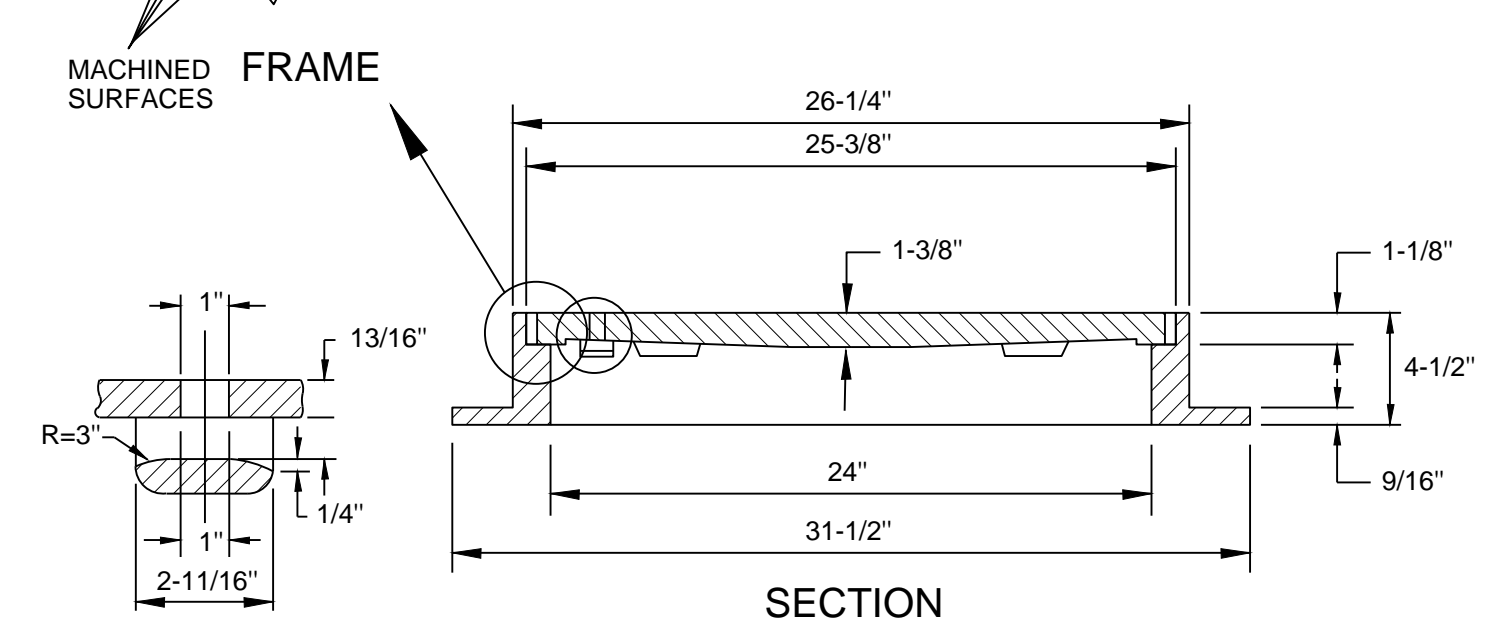
36" MANHOLE FRAME & COVER

SCALE: NTS

2
18



PLAN

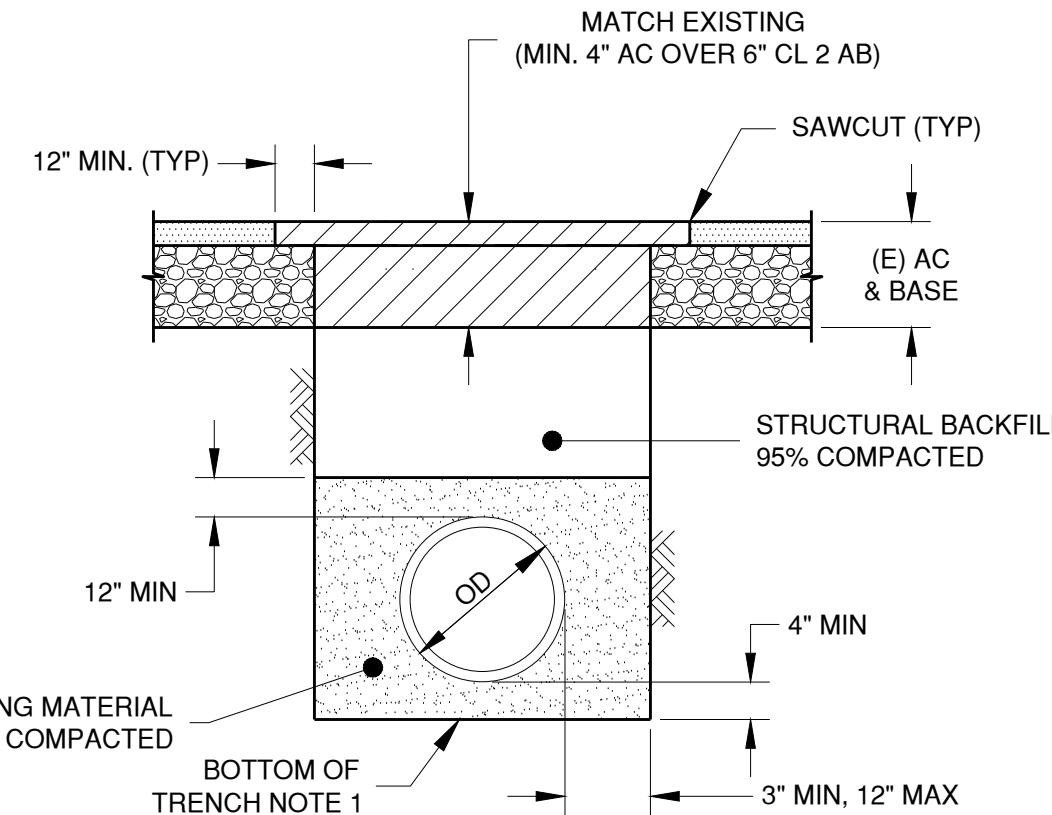


SECTION

24" MANHOLE FRAME & COVER

SCALE: NTS

3
18



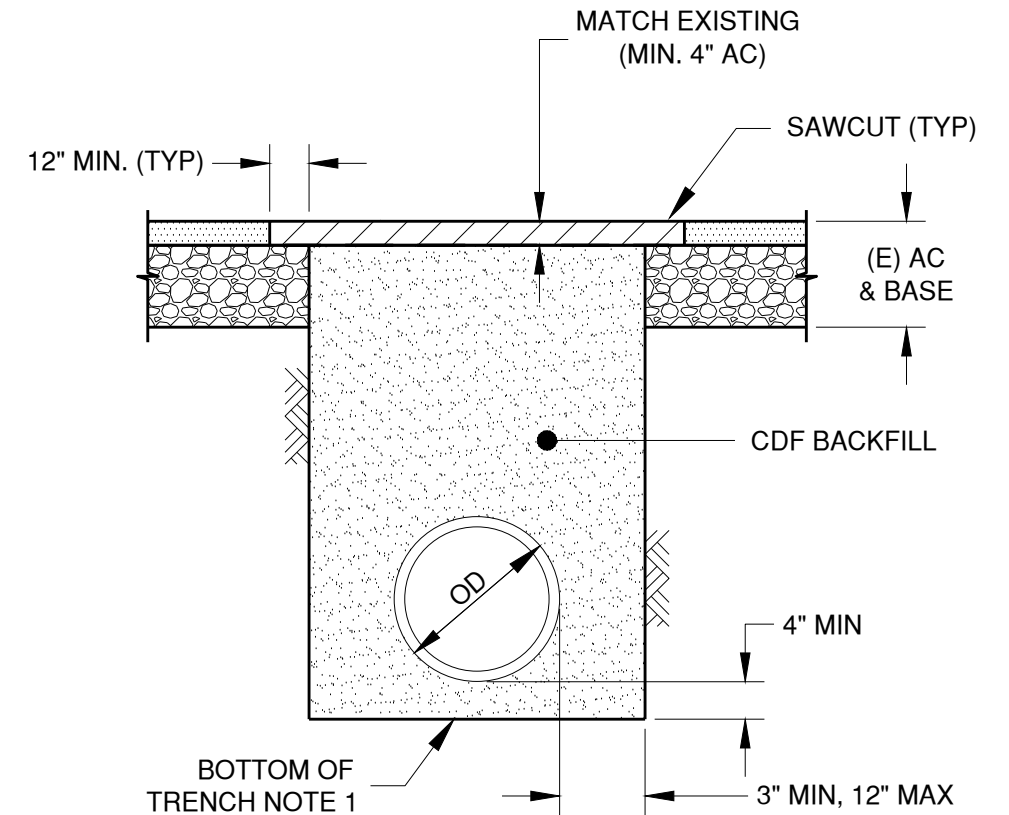
NOTES:

1. IF SOFT SOILS ARE ENCOUNTERED EXCAVATE 12" BELOW PIPE AND INSTALL GEOTEXTILE FABRIC PER SPECIFICATION SECTION 02200.
2. CONTRACTOR'S OPTION TO USE CDF BACKFILL PER DETAIL 5 ON SHEET 18.

STANDARD TRENCH

SCALE: NTS

4
18



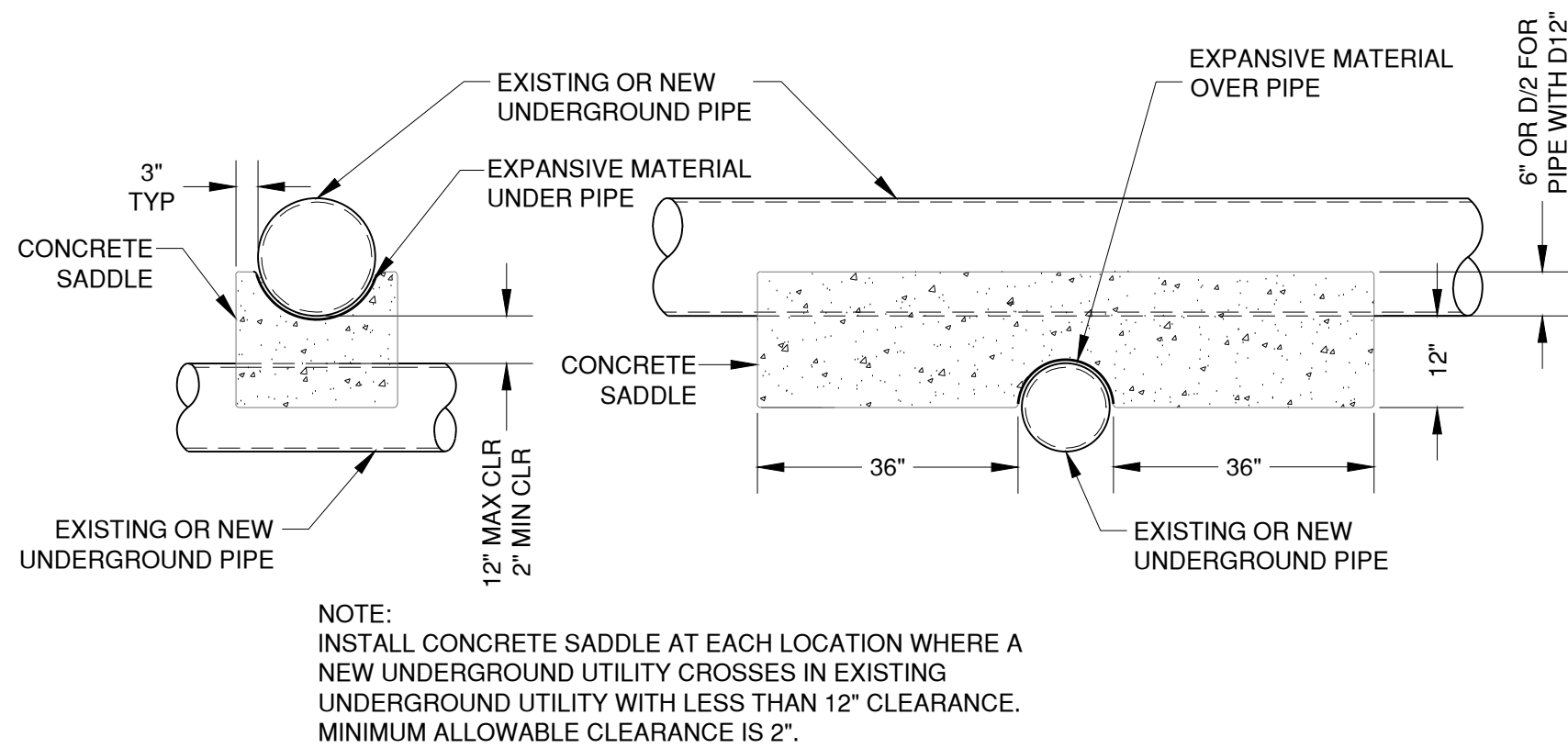
NOTES:

1. IF SOFT SOILS ARE ENCOUNTERED EXCAVATE 12" BELOW PIPE.

CDF TRENCH

SCALE: NTS

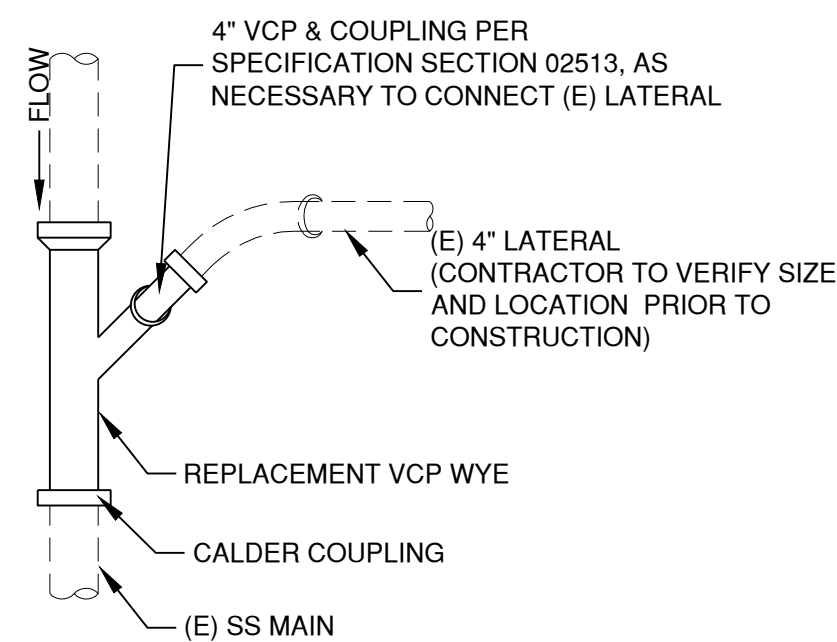
5
18



CONCRETE SADDLE

SCALE: NTS

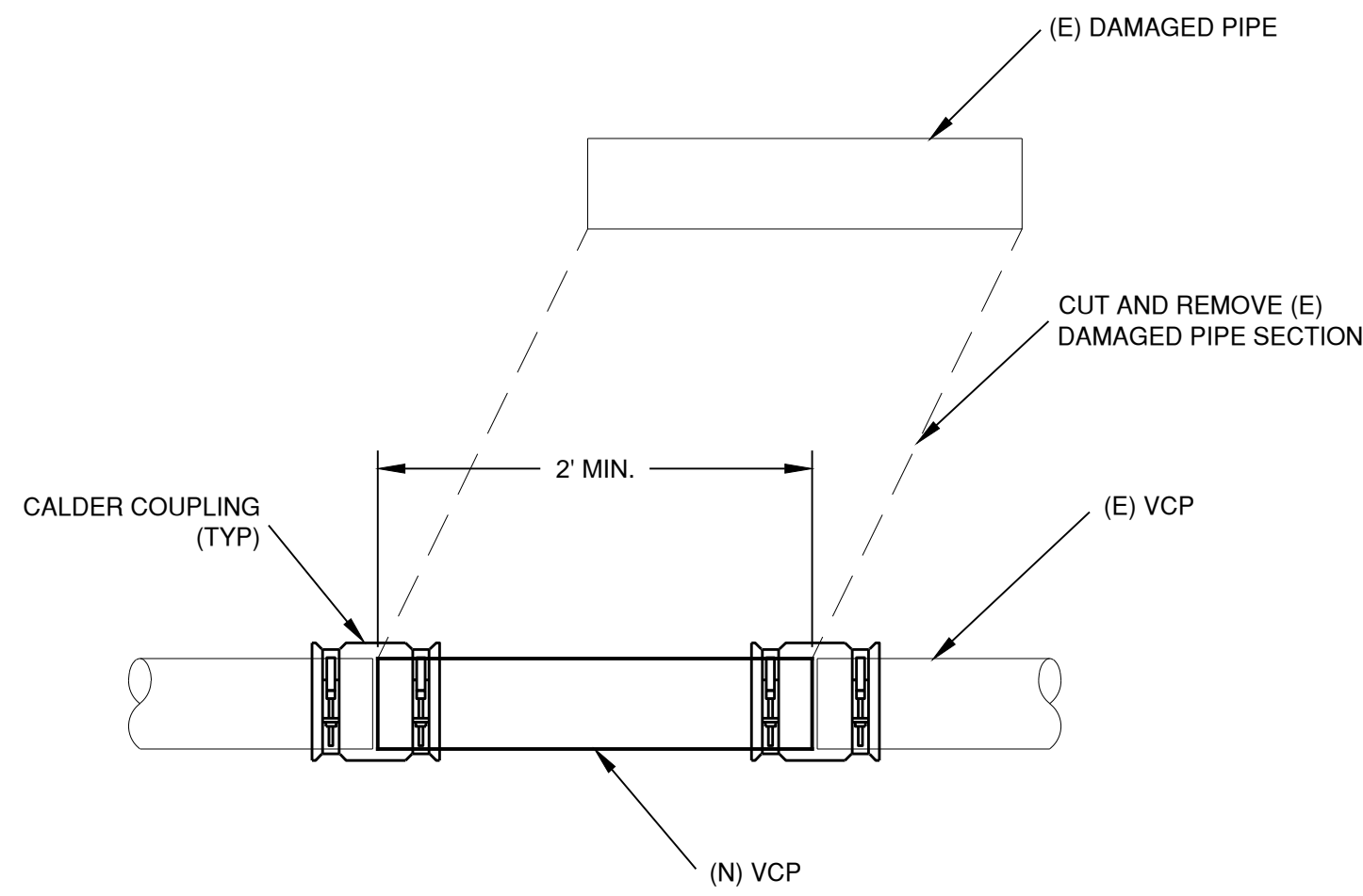
6
18



LATERAL REPAIR

SCALE: NTS

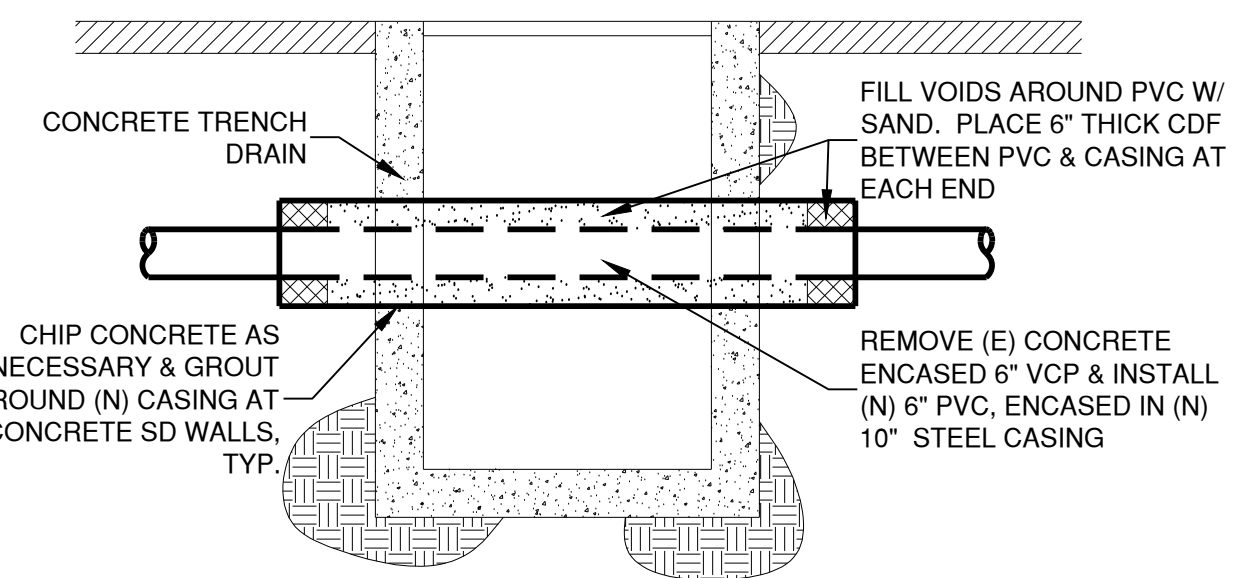
7
18



SPOT REPAIR

SCALE: NTS

8
18



CULVERT CROSSING

SCALE: NTS

9
18

NO	REVISIONS	DATE	APPR
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS
2			
3			
4			
5			
6			



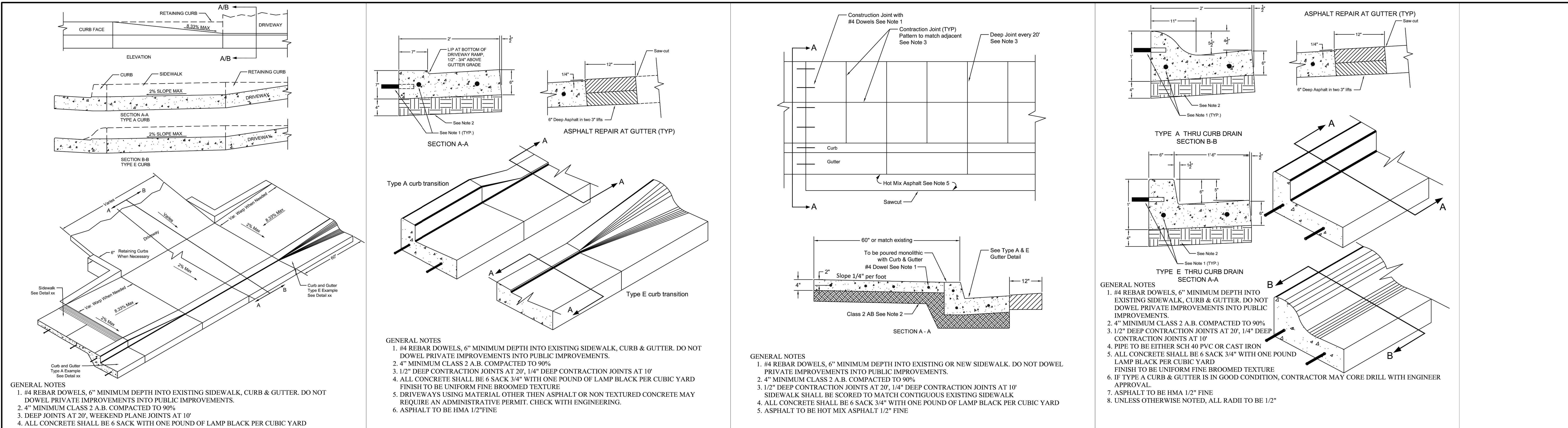
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DEPT. OF PUBLIC WORKS CCN 2015-534
**2015 SEWER
REHABILITATION PROJECT
DETAILS**

DATE: 5/29/15
SCALE: AS SHOWN
DESIGN: CLP
DRAWN: CLP
CHECKED: BLS

SHEET
18
OF
19



CITY OF BELMONT
DEPARTMENT OF PUBLIC WORKS

DRIVEWAY
WITH SIDEWALK

DWG No. _____
APPROVED
JAN 2013 NOT TO SCALE

CITY OF BELMONT
DEPARTMENT OF PUBLIC WORKS

CONCRETE CURB & GUTTER
AT DRIVEWAY APPROACH

DWG No. _____
APPROVED
JAN 2013 NOT TO SCALE

CITY OF BELMONT
DEPARTMENT OF PUBLIC WORKS

GURB, GUTTER
AND SIDEWALK

DWG No. _____
APPROVED
JAN 2013 NOT TO SCALE

CITY OF BELMONT
DEPARTMENT OF PUBLIC WORKS

TYPE A & E CONCRETE
CURB AND GUTTER

DWG No. _____
APPROVED
JAN 2013 NOT TO SCALE

DRIVEWAY APPROACH

1
19

SCALE: NTS

DRIVEWAY APPROACH CURB

2
19

SCALE: NTS

CURB, GUTTER, & SIDEWALK

3
19

SCALE: NTS

CURB & GUTTER

4
19

SCALE: NTS

NO	REVISIONS	DATE	APPR	<div><div></div><div>BELMONT, CALIFORNIA</div></div>	<div><div>Schaaf & Wheeler</div><div>CONSULTING CIVIL ENGINEERS</div><div>1171 HOMESTEAD RD, STE. 255</div><div>SANTA CLARA, CA 95050</div><div>(408) 246-4848</div></div>	<div><div></div><div>6/02/15</div></div>	<div>DEPT. OF PUBLIC WORKS CCN 2015-534</div> <div>2015 SEWER</div> <div>REHABILITATION PROJECT</div> <div>DETAILS</div>	DATE: 5/29/15	SHEET 19 OF 19
1	UTILITY LOCATION & UPPER LOCK	7/9/15	BLS					SCALE: AS SHOWN	
2								DESIGN: CLP	
3								DRAWN: CLP	
4								CHECKED: BLS	
5									
6									

Exhibit A

July 2015 Potholing Report



REPORT
FOR



Belmont, CA

**Bess Test Lab Inc.
2463 Tripaldi Way
Hayward, CA. 94545
Pothole Project Manager: Joshua Williams
Ofc: (408) 988-0101
Cell: (909) 225-0656
Email: joshua@besstestlab.com**

Proposed Technical Approach

Potholing at various locations has been completed using vacuum excavation. The pothole locations were laid-out over USA marks and verified by our locators accordingly to assigned plans. The potholes were excavated using high pressure air and vacuum extraction. After the utility was exposed, we documented the type, size, and depth. Back filling was done using required backfill material per county or utility owner, we staked and/or placed a nail over the utility and marked the direction of the utility with the appropriate color paint. Photographs with GPS coordinates were taken of the potholes showing the background and have been submitted in the report.

Electronic Probing Locations

To confirm utility location and minimize dry holes, Utility Locators located utility of interest using the direct connect method using electromagnetic locators and ground penetrating radar (GPR). Each location was marked out according to plans with a stake/and or appropriate color paint. Photograph of all electronic potholes showing the background have also been taken on each pothole along with a GPS coordinates.

Site Specific Details

Bess Testlab Inc. was contracted by the City of Belmont to perform utility locating and potholing services. A total of 16 potholes were excavated to establish depths and location of a variety of utilities. The results of the data are contained in the attached report.

At each pothole location, the utility alignment was marked using paint and a PK nail or feathers.

TABULATION

Pothole #	Utility	Material	Diameter	Soil	Paving	Thickness	Depth	Remarks	Lat	Long
PH 1	Water	CastIron	6"	Hard Clay	Asphalt	4"	27.5"	Found Water @ 27 1/2" Deep. Pipe is Runing Northeast to Southwest. Water located Under Concrete Leaf of Sidewalk in Desired Location.	37.52489	-122.287512
PH 2	Water	CastIron	6"	Rocky	Asphalt	6"	37"	Found Water Pipe @ 37" Deep. Pipe is Running Northwest to Southeast. Pothole Dug as Directed by Engineer on site.	37.5242	-122.2877
PH 3	Water	CastIron	6"	Rocky	Asphalt	2"	38"	Found Water Pipe @ 38" Deep. Pipe is Running Northeast to Southwest.	37.52405	-122.287393
PH 4	Water	CastIron	6"	Rocky / Clay	Asphalt	4"	37"	Found Water Pipe @ 37" Deep. Pipe is Running Northwest to Southeast.	37.52397	-122.287229
PH 5	Water	PVC	6"	Sand	Asphalt	5"	47"	Found Water Pipe @ 47" Deep. Pipe is Running Northeast To Southwest.	37.52298	-122.287321
PH 6	Water	PVC	6"	Sand	Asphalt	5"	44"	Found Water Pipe @ 44" Deep. Pipe is Running Northeast To Southwest.	37.52257	-122.287652
PH 7	Water	PVC	6"	Sand	Asphalt	5"	50"	Found Water Pipe @ 44" Deep. Pipe is Running Northeast To Southwest.	37.52228	-122.287967
PH 8	Water	CastIron	4"	Dirt	Asphalt	3"	30"	Found Water Pipe @ 30" Deep. Pipe is Running Northwest To Southeast.	37.52253	-122.288275

TABULATION

Pothole #	Utility	Material	Diameter	Soil	Paving	Thickness	Depth	Remarks	Lat	Long
PH 9	Water	CastIron	4"	Dirt	Asphalt	4"	30"	Found Water Pipe @ 30" Deep. Pipe is Running Northwest To Southeast.	37.52288	-122.288631
PH 10	Water	CastIron	6"	Hard Clay	Asphalt	5"	34"	Found Water Pipe @ 34" Deep. Pipe is Running Northeast To Southwest.	37.52529	-122.287593
PH 11	Water	CastIron	6"	Hard Clay	Asphalt	5"	38"	Found Water Pipe @ 38" Deep. Pipe is Running Northeast To Southwest. Crew Also Found Unkwon 3/4" Copper Pipe @ 26" Deep. Pipe Paralell to Water Line.	37.5255	-122.287678
PH 12	Water	CastIron	6"	Dirt	Concrete	5"	28"	Crew Dug at Pothole Location as Directed Utility Was Found. Apon Investiagtion Crew Was Able to Take the Electronic Depth of the Water Line 28" Deep on the Sidewalk Running Next to Gas Line. Pipe is Running North to South.	37.51205	-122.291852
PH 14	Water	PVC	6"	Gravel	Asphalt	6"	33"	Found Water Pipe @ 33" Deep. Pipe is Running Northeast To Southwest.	37.5112	-122.291789
PH 16	Water	CastIron	2"	Other	Asphalt	4"	48"	Crew Was Unable to Verify Utility Depth Due to Concrete Cap @ 4" Deep. Crew Was Able to Get Eletronic Depth of Water Line @ 48" Deep and Communication @ 36" Deep. Both Utilities are Running Northeast to Southwest.	37.51268	-122.29212

TABULATION

Pothole #	Utility	Material	Diameter	Soil	Paving	Thickness	Depth	Remarks	Lat	Long
PH 17	Water	PVC	6"	Sand	Asphalt	4"	27"	Found Water Pipe @ 27" Deep. Pipe is Running East To West.	37.51477	-122.30380
PH 18	Water	CastIron	8"	Rocky	Asphalt	5"	47"	Unable to Verify Depth Due Hard Rock Soil Conditions. Crew Was Able to Provide Electronic Depth @ 47" Deep.	37.50928	-122.294915

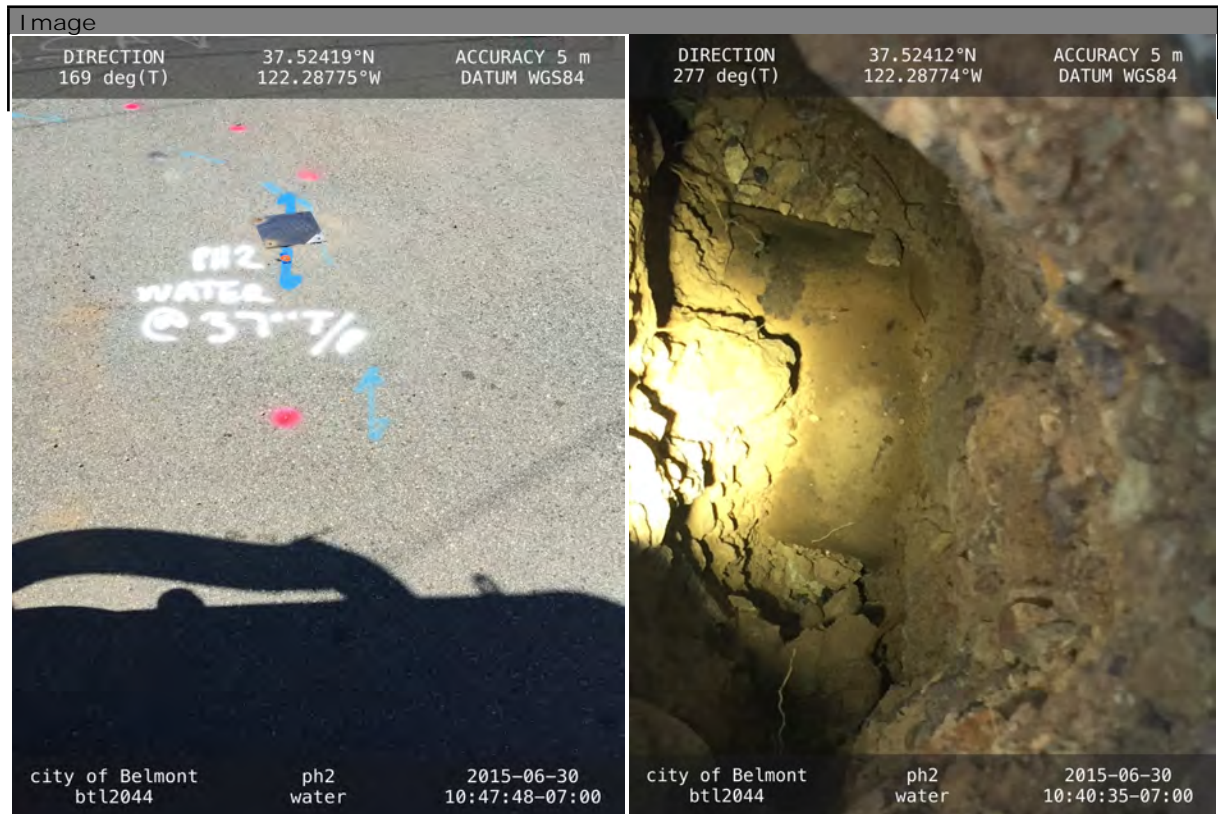
POTHOLE DATA SHEETS

Pothole Number	PH-1
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	6"
Soil	Clay
Paving Type	Asphalt
Paving Thickness	4"
Depth to Top	27 1/2"
Remarks	See Tabulation



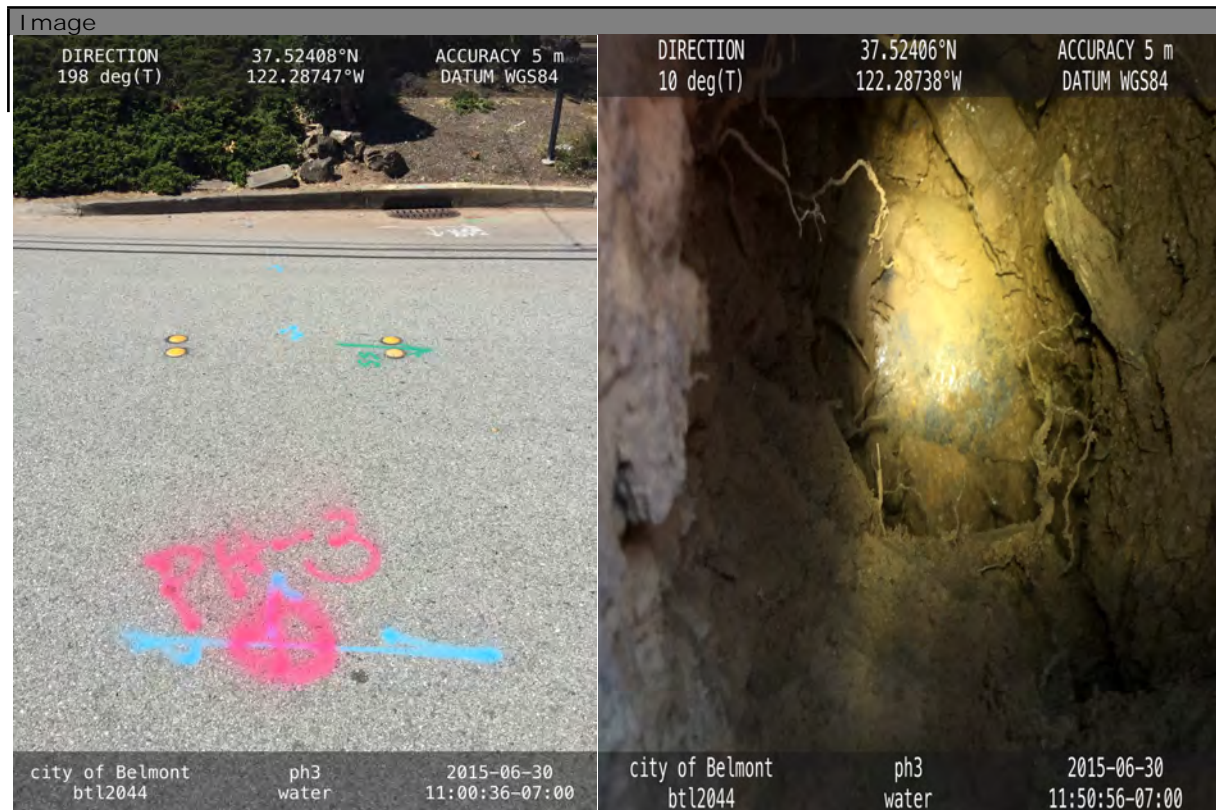
POTHOLE DATA SHEETS

Pothole Number	PH-2
Reference	N/A
Utility	water
Material	Cast Iron
Diameter	6"
Soil	Rocky
Paving Type	Asphalt
Paving Thickness	6"
Depth to Top	37"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH-3
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	6"
Soil	Dirt
Paving Type	Asphalt
Paving Thickness	2"
Depth to Top	38"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH-4
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	6"
Soil	Rocky
Paving Type	Asphalt
Paving Thickness	4"
Depth to Top	37"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH-5
Reference	N/A
Utility	Water
Material	PVC
Diameter	6"
Soil	Sand
Paving Type	Asphalt
Paving Thickness	5"
Depth to Top	47"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH-6
Reference	N/A
Utility	Water
Material	PVC
Diameter	6"
Soil	Sand
Paving Type	Asphalt
Paving Thickness	5"
Depth to Top	44"
Remarks	See Tabulation

Image



POTHOLE DATA SHEETS

Pothole Number	PH-7
Reference	N/A
Utility	Water
Material	PVC
Diameter	6"
Soil	Sand
Paving Type	Asphalt
Paving Thickness	5"
Depth to Top	50"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH-8
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	4"
Soil	Dirt
Paving Type	Asphalt
Paving Thickness	3"
Depth to Top	30"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH-9
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	4"
Soil	Dirt
Paving Type	Asphalt
Paving Thickness	4"
Depth to Top	30"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH 10
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	6"
Soil	Hard Clay
Paving Type	Asphalt
Paving Thickness	5"
Depth to Top	34"
Remarks	See Tabulation



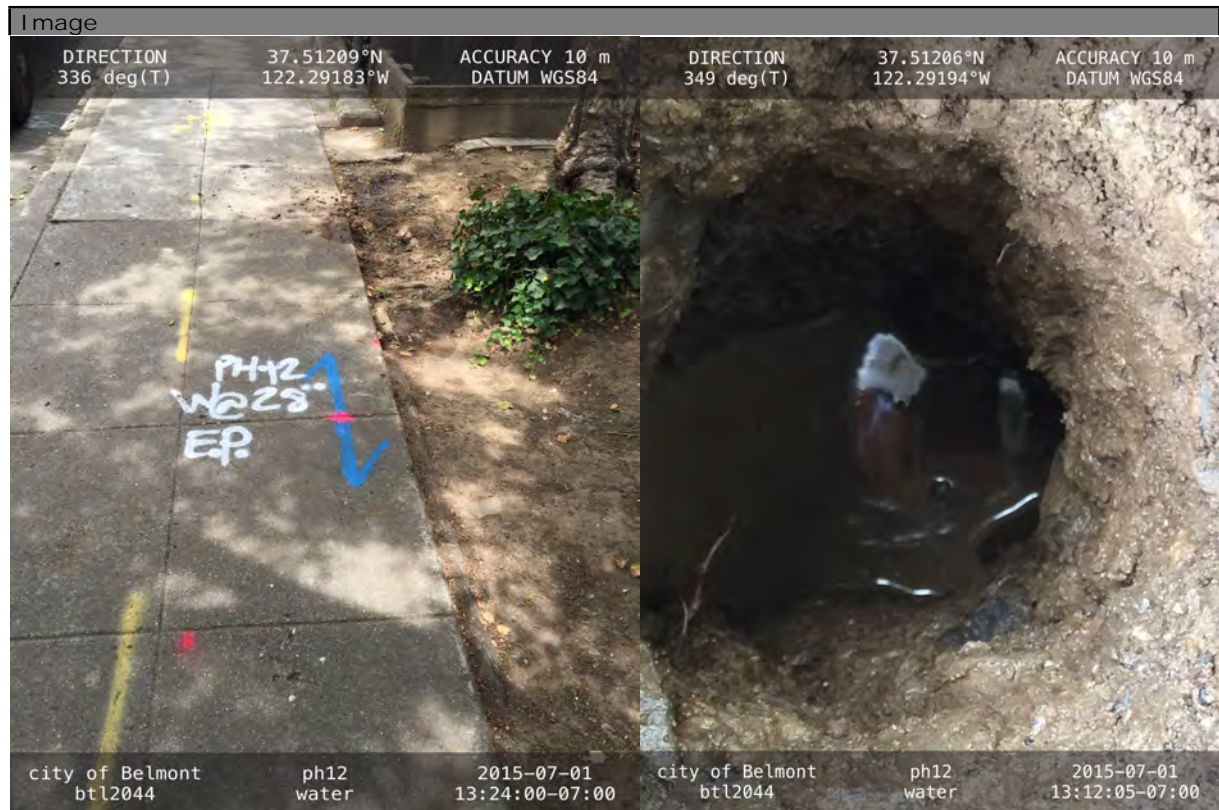
POTHOLE DATA SHEETS

Pothole Number	PH 11
Reference	N/A
Utility	Water/Unknown
Material	Cast Iron/ Copper
Diameter	6" / 3/4"
Soil	Hard Clay
Paving Type	Asphalt
Paving Thickness	5"
Depth to Top	38"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH 12
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	6"
Soil	N/A
Paving Type	Concrete
Paving Thickness	N/A
Depth to Top	28"
Remarks	See Tabulation



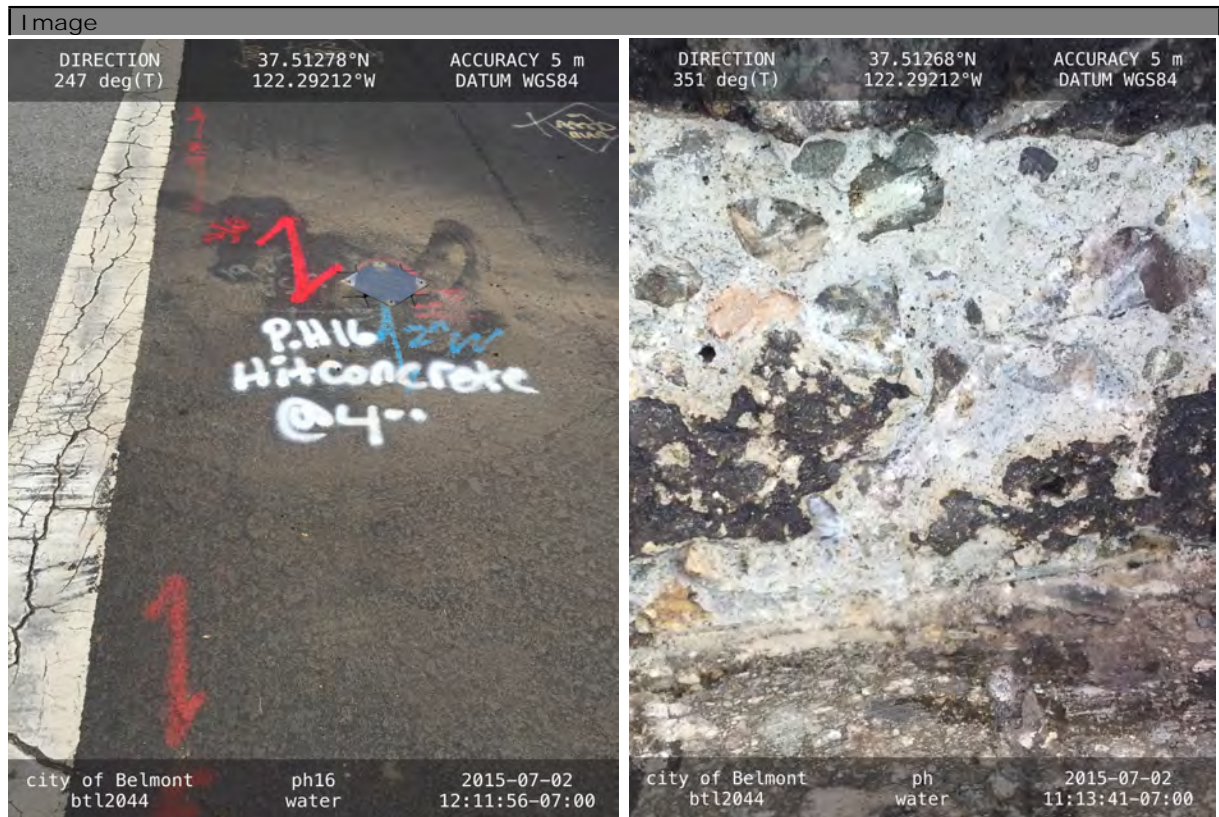
POTHOLE DATA SHEETS

Pothole Number	PH 14
Reference	N/A
Utility	Water
Material	PVC
Diameter	8"
Soil	Sand
Paving Type	Concrete
Paving Thickness	6"
Depth to Top	33"
Remarks	See Tabulation



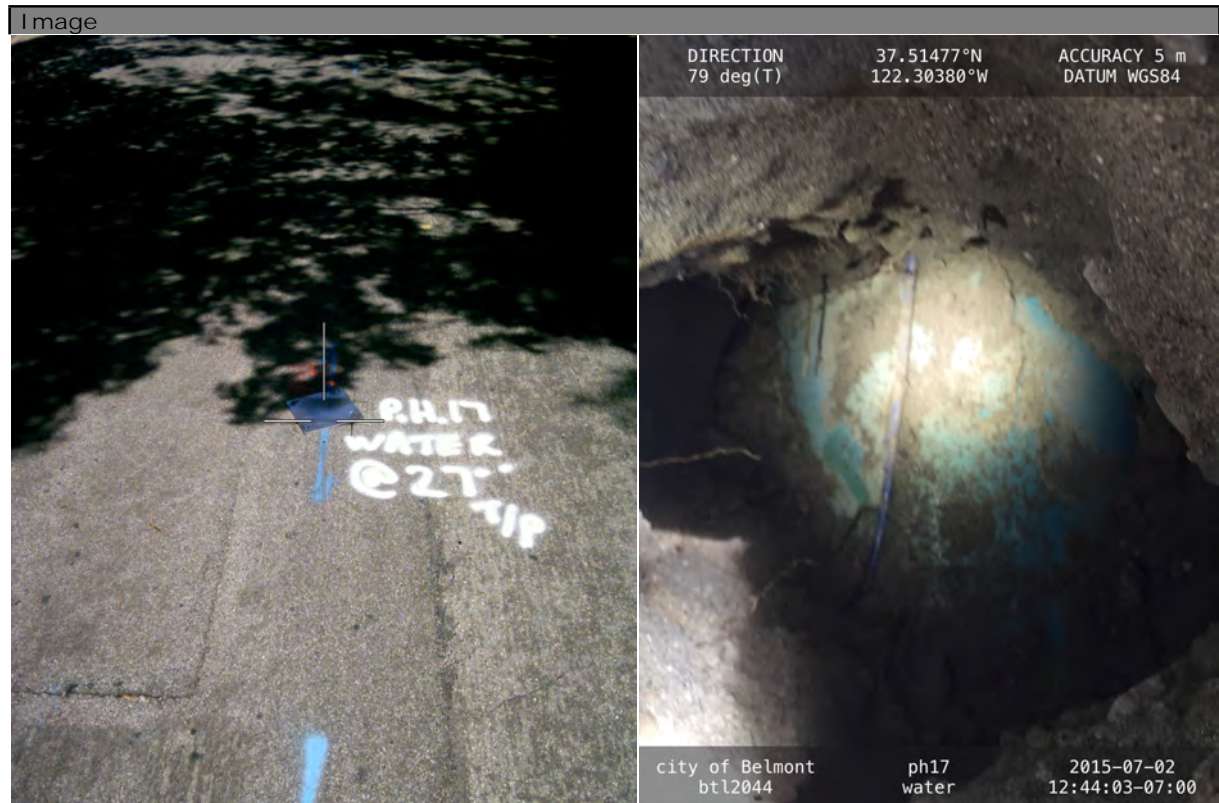
POTHOLE DATA SHEETS

Pothole Number	PH 16
Reference	N/A
Utility	Water/ Communication
Material	N/A / N/A
Diameter	2" /N/A
Soil	N/A
Paving Type	Asphalt
Paving Thickness	4"/4"
Depth to Top	48"/36"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH 17
Reference	N/A
Utility	Water
Material	PVC
Diameter	6"
Soil	Sand
Paving Type	Asphalt
Paving Thickness	4"
Depth to Top	27"
Remarks	See Tabulation



POTHOLE DATA SHEETS

Pothole Number	PH 18
Reference	N/A
Utility	Water
Material	Cast Iron
Diameter	8"
Soil	Rocky
Paving Type	Asphalt
Paving Thickness	5"
Depth to Top	47"
Remarks	See Tabulation

